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Lakeview Resource Area

Lakeview District Planning Update

Planning Update

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Lakeview District Office

December 2004

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

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Planning Update Fiscal Years 2002-2004

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Introduction

This *Planning Update* is part of the Bureau of Land Management's (BLM) continuing commitment to keep you informed of the management of the public lands in south central Oregon. *Planning Updates,* like this one, are published periodically, usually on an annual basis for all BLM Districts in Oregon and Washington. It is our hope that this update will help you understand the land management decisions and current proposals occurring on the BLM's Lakeview Resource Area of the Lakeview District. This document is not intended to be a comprehensive description of all activities, but rather a summary of recent land use plan implementation activities completed in recent years.

The Lakeview District of the Bureau of Land Management encompasses approximately 3.5 million acres in southeastern Oregon (Figure 1). The district is divided into two administrative units called resource areas: Klamath Falls and Lakeview Resource Areas. The two resource areas differ in the major types of management activities that occur due to the differences in the types of natural resource values present. A summary of management activities for the Klamath Falls Resource Area is published as a separate document. A summary of management activities for the Lakeview Resource Area is contained in this document. Copies of previous *Planning Update* documents are available in hardcopy or electronically on the Lakeview District's land use planning webpage at http://www.or.blm.gov/ Lakeview/Planning/ planning.htm.

The sections that follow contain a summary of management activities that have been recently completed or are currently in the planning or implementation process. ***If you have specific comments regarding the format or content of this document, are interested in being placed on our mailing list for a specific project or wish to be removed from our mailing list, please fill out and send us the mailing list update form included in the following section.***

Land Use Planning History

The Lakeview Resource Area consists of approximately 3.2 million acres of BLM-administered land in Lake and Harney counties in south central Oregon (Figure 2) which were formerly known as the Warner Lakes and High Desert (and a small portion of the Lost River) Resource Areas. Until recently, management activities were directed by the *Warner Lakes* and the *High Desert Management Framework Plans* (as amended).

The Lakeview Resource Area initiated a new, comprehensive resource management plan in 1999. The *Lakeview Resource Management Plan and Record of Decision* (RMP) was completed in November 2003. Copies of the RMP and all supporting documents are available in hardcopy or electronic (pdf) format on CD-ROM. They can be obtained by contacting Paul Whitman (phone: (541) 947-6110 or email: pwhitman@or.blm.gov. In addition, the documents are also available on-line at http://www.or.blm.gov/Lakeview/ Planning/ planning.htm.

Though the *Lakeview RMP* is now complete, there is an ongoing need to implement, monitor, and maintain the plan in the coming years. Progress made on plan implementation and monitoring will be reported in future *Planning Updates* like this one. Current plan maintenance needs are described later in this document.

Mailing List Update

In our effort to serve you more efficiently we continually update our mailing list. Because the BLM is involved in many different management activities and material is made available to you at no cost, we would appreciate it if you would take a minute to make sure we have your correct name and address. Listed on the following pages are the different resource management activities for which we maintain a mailing list for use when a project is proposed and public input sought. Please look over this list. Decide which types of activities you are interested in receiving information and mark the appropriate space. Mail this response form **to us by March 1, 2005**. If you have changed your name or address please supply us with your old name or address. Thank you for helping us keep our mailing costs down.

Summary of What You Will Find in this Document

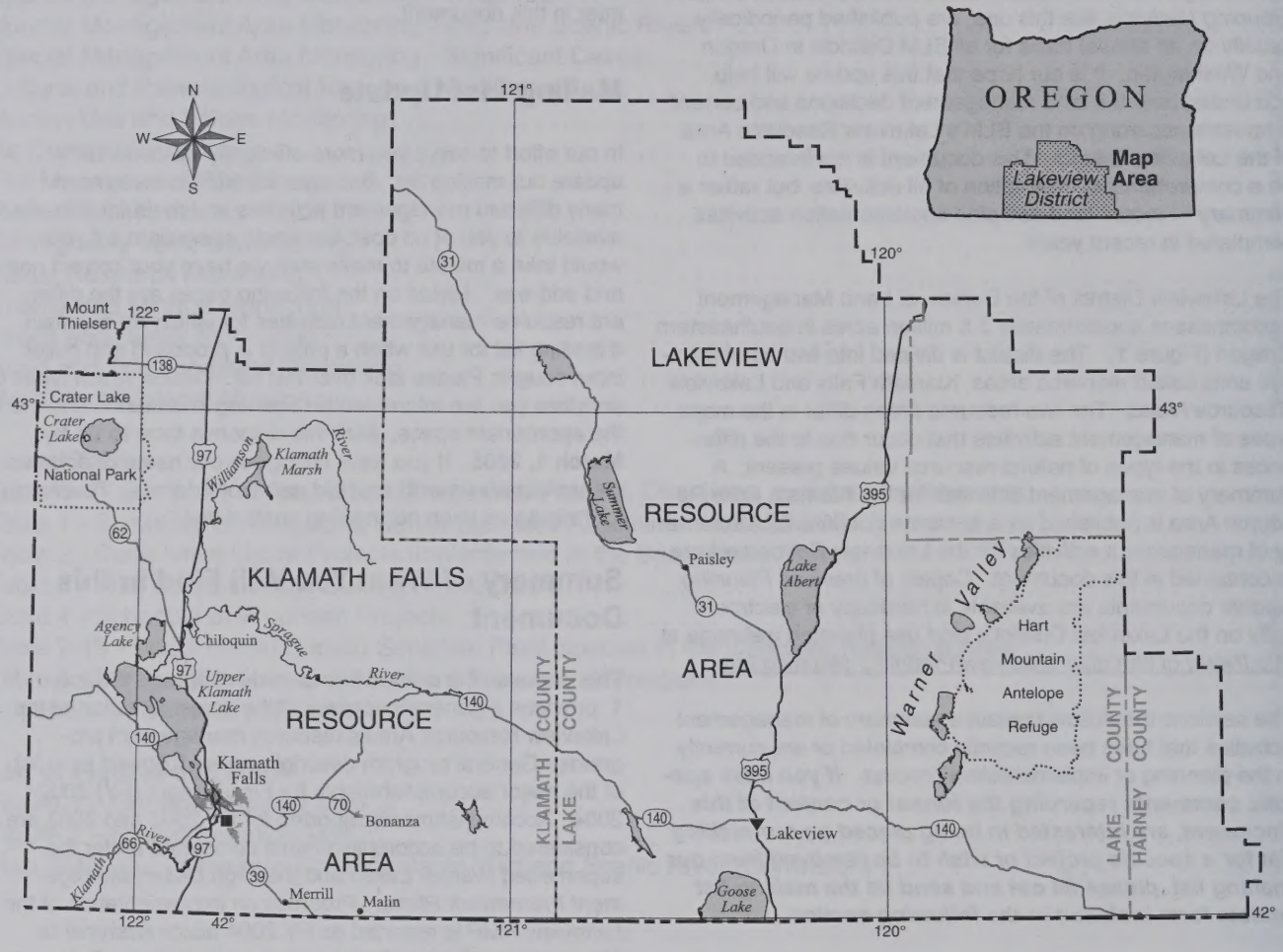
This document is divided into several chapters. Chapter 1 provides a general overview of the implementation of the Lakeview Resource Area's resource management programs. General program descriptions are followed by a list of the major accomplishments for Fiscal Years (FY) 2002-2004. Accomplishments reported for FY 2002 and 2003 are considered to be accomplishments completed under the superceded *Warner Lakes* and the *High Desert Management Framework Plans*. Progress on implementation of the *Lakeview RMP* is reported as FY 2004 accomplishments. These accomplishments are summarized in Table S-1.

Chapter 2 contains a list of projects currently in the planning stage and the status of the completion of the associated National Environmental Policy Act (NEPA) documentation.

Chapter 3 contains a discussion minor plan maintenance actions that occurred in FY 2004.

Chapter 4 contains a summary of plan/project monitoring that occurred in FY 2004.

FIGURE 1 - GENERAL LOCATION MAP



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- ■ BLM RESOURCE AREA OFFICE
- BLM DISTRICT BOUNDARY
- BLM RESOURCE AREA BOUNDARY
- STATE BOUNDARY
- (97) U. S. HIGHWAY
- (39) STATE HIGHWAY

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Lakeview District
2004

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Response Form

Check the resource management activities in which you are interested.

Land Use Planning

Plan Updates (like this document) _____

Resource Management

Recreation _____
Off-Highway Vehicles _____
Caves _____
Range/Livestock Grazing _____
Cultural & Paleontological Resources _____
Hydroelectric Energy _____
Geothermal Energy _____
Minerals _____
Fish/Aquatic (including sensitive, T&E species) _____
Wildlife (including sensitive, T&E species) _____
Fire & Hazardous Fuels _____
Sensitive Plant Species _____
Noxious Weeds _____
Wild Horses _____
Areas of Critical Environmental Concern Management/Research
Natural Areas _____
Wilderness _____
Wild & Scenic Rivers _____
Wetland/Riparian _____
Forest & Woodlands _____
Lands Tenure _____
Rights-of-Way _____
Roads & Access _____
Hazardous Materials _____

____ Please remove my name from all mailing lists

____ Please change my name and/or address to:

New Name/Address:

_____
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Old Name/Address:

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Comments:

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BUREAU OF LAND MANAGEMENT
Lakeview Resource Area
ATTN: Planning and Environmental Coordinator
1301 South G Street
Lakeview, OR 97630

(Fold here)

FIGURE 2 - LAKEVIEW RESOURCE AREA PROJECT LOCATIONS

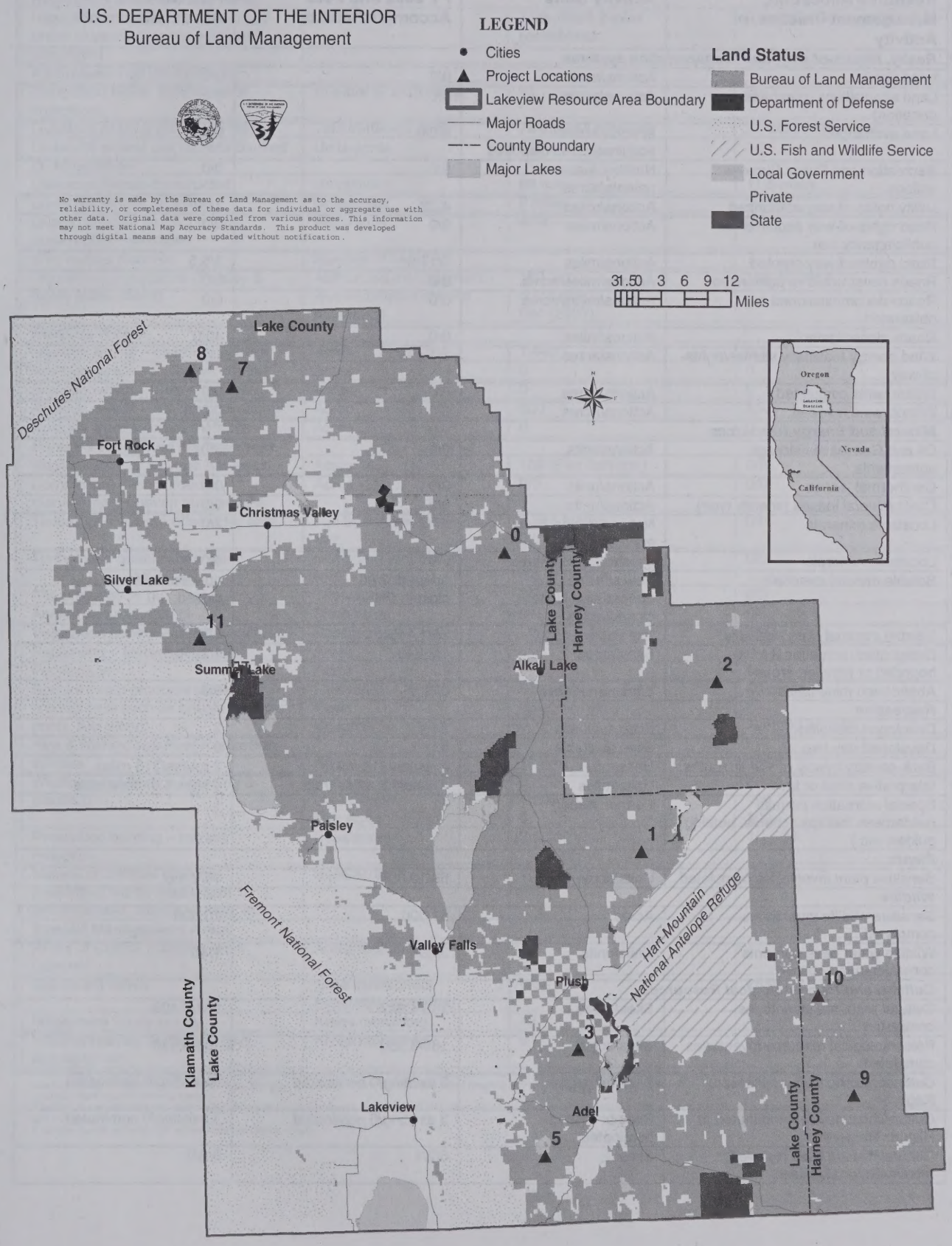


Table S-1. Summary of Resource Management Actions, Directions, and Accomplishments[1/]			
Resource Allocation, Management Practice, or Activity	**Activity Units**	**FY 2002 and 2003 Accomplishments**	**FY 2004 Accomplishments**
Realty, Rights-of-way, and Transportation systems			
Land Sales	Actions/acres	0/0	0/0
Land acquisitions (purchase, donation)	Actions/acres	0/0	0/0
Land exchanges	Actions/acres acquired/acres disposed	0/0/0	0/0/0
Recreation and Public Purpose actions	Number leases or patents/acres	0/0	0/0
Utility rights-of-way authorized	Actions/miles	4/22	2/22
Road rights-of-way acquired for public/agency use	Actions/miles	0/0	0/0
Road rights-of-way granted	Actions/miles	5/17.6	3/5.5
Roads constructed or authorized	Actions/miles/acres	0/0	0/0
Roads decommissioned or obliterated	Actions/miles/acres	0/0	0/0
Roads closed/gated[/]	Actions/miles	0/0	40/0[2]
Wind energy feasibility studies/rights-of-way	Actions/acres	2/4,433	1/1
Withdrawals completed	Actions/acres	0/0	0/0
Withdrawals revoked	Actions/acres	0/0	0/0
Mineral and Energy Resources			
Oil and Gas leases/storage agreements	Actions/units	0/0	0/0
Geothermal leases	Actions/units	0/0	0/0
Other mineral leases (specify type)	Actions/units	0/0	0/0
Locatable minerals	Notices/mining plans approved	17/2	2/0
Locatable minerals	Patents issued/acres	0/0	0/0
Salable mineral materials	New sites opened/acres/sites closed/acres	opened: 2/80 closed: 0/0	opened: 2/80 closed: 0/0
Salable material sites available	Sites/acres	26/1,115	28/1,195
Designated recreational rock-hounded or panning areas	Sites/acres	1/2,540	1/2,540
Abandoned mine lands	Sites remediated	0/0	0/0
Recreation			
Developed camping	Sites available	2	2
Developed day use	Sites available	8	8
Back-country byway or scenic routes	Units/miles	2 routes/318 miles	2 routes/318 miles
Interpretive sites or trails	Units/miles	4 sites/1.5 miles trails	4 sites/1.5 miles trails
Special recreation permits (wilderness therapy schools, hunting guides, etc.)	Permits issued	11	1
Plants			
Sensitive plant inventories completed	Units/acres	59/10,000	16/2,197
Wildlife			
Sensitive wildlife inventories completed	Acres	51,000	10,500
Wildlife water developments constructed/maintained	Units/units	3/80	1/40
Cultural and Paleontological Resources			
Cultural resource inventories completed	Sites/acres	183/4,947	107/5,109
Paleontological resource inventories completed	Sites/acres	185/5,350	108/5,310
Cultural/historic sites on Historic Register	Sites managed	3 existing/0 nominated	3 existing/0 nominated
Cultural/historic sites nominated to Historic Register	Sites or Districts nominated	3 existing/0 nominated	3 existing/0 nominated
Cultural/historic sites restored, recovered, or stabilized	Sites	0/2/1	0/0/0

Table S-1. Summary of Resource Management Actions, Directions, and Accomplishments[1/]			
Hazardous Materials and Sites			
Hazardous material sites identified, under treatment, or remediation completed	Sites	2 identified/2 sites remediated	9 identified/4 remediated
Rangeland and Wild Horses			
Rangeland health assessments completed	Number of allotments	43	30
Livestock grazing permits or leases	Total/renewed units	74 total/14 renewed	74 total/20 renewed
Livestock animal unit months banked or relinquished	Units/acres	0/0	0/0
Livestock fences constructed	Units/miles	69 miles	11.5 miles
Livestock fences removed	Units/miles	8 miles	2 miles
Livestock water developments constructed/maintained	Units/units	4/14	2/8
Wild horses removed	Number of head		
Wild horse populations (Paisley & Beaty Butte HMAs)	Authorized management level/estimated current population	160-360/ 509 (2002) 694 (2003)	160-400/863
Noxious Weeds			
Noxious weeds – chemical control	Acres	1,440	800
Noxious weeds - biological control	Acres	0	0
Noxious weeds - prescribed fire	Acres	0	0
Noxious weeds – mechanical control	Acres	600	150
Noxious weeds - other methods	Acres	0	0
Forest & Woodland Management			
Regeneration or salvage harvest	Acres	109 (Fire Salvage)	0/0
Commercial thinning/density management/uneven age harvest	Acres	0/0	0/0
Timber sale volume offered for sale	MM board feet/MM cubic feet	0.344 MMBF / 0.579 MMCF	0/0
Timber sale quantity harvested	MM board feet/MM cubic feet	0.344 MMBF / 0.579 MMCF	0/0
Site preparation	Sites/acres	0/0	0/0
Animal damage control	Sites/acres	0/0	0/0
Vegetation control – mechanical/hand	Sties/acres	0/0	0/0
Replanting – following harvest	Acres	0	0
Fertilization	Acres	0	0
Special forest products sales (by product type such as boughs, fences posts, fuel wood)	Firewood: Posts Boughs	61 cords 85 cubic feet 0	80 cords 0 124,000 pounds
Fire & Hazardous Fuel Reduction			
Wildfire	Acres	10,543	136
Wildfire rehabilitation (seeding & planting)	Seeding acres, shrub acres, tree acres	3,800 1,300 0	86 100 100
Prescribed burning – hazard reduction	Sites/acres	2/5,100	1/1,600
Natural or artificial ignition/ prescribed fire for ecosystem enhancement, wildlife, forage, etc.	Sites/acres	1/2,300	0/0
Special Management Areas			
Areas of Critical Environmental Concern	Areas monitored	4	17
Significant caves	Sites inventoried/ evaluated/monitored	0/0/7	25/0/7
Wilderness Study Areas	Areas monitored	12	12
Administratively Suitable Wild & Scenic Rivers	Areas monitored	0	1

[1/] The *Lakeview RMP* was approved in November 2003, very close to the end of FY 2003. The accomplishments reported for FY 2002 and 2003 in this table effectively reflect progress made implementing the now superseded Management Framework Plans. The accomplishments reported for FY 2004 reflect progress made implementing the new *Lakeview RMP*. Annual and cumulative totals will be reported for the *Lakeview RMP* in future *Planning Updates*.

[2/] Includes the number of roads where on-the-ground closure actions have occurred (out of 247 miles permanent closures identified in the RMP); an additional 288 miles of roads are seasonally closed within deer winter range.

[3/] Includes horses gathered from adjacent national wildlife refuges.

Chapter 1 - Plan Implementation

Plant Communities

The botany program ensures that native plants and their habitats, including special status species, are protected during the operation of the BLM's multiple use programs. This is achieved by conducting plant surveys for sensitive/cultural plants, monitoring population trends of sensitive species, and developing and implementing plant habitat management plans. For further information on this program contact Lucile Housley at 541-947-6131.

* An Ecological Site Inventory (ESI) has been on-going within the Lakeview Resource Area for about 20 years. This inventory included collection of existing vegetation, potential vegetation, and ecological condition data within Lake and Harney Counties. Soil data was also collected (see the previous discussion under the "Water Quality and Soils" section). Field mapping was completed in Fiscal Year (FY) 2003. This inventory was performed in cooperation with the NRCS. The data is currently being input into GIS. The results of this inventory work will be used for project planning as the *Lakeview RMP* is implemented in the future. For more information on this inventory, contact Theresa Romasko at 541-947-6143.

* Efforts are underway to develop native grass and forb seed sources for use in future wildfire and other site rehabilitation work. Seed has been collected, cleaned, and is in the process of being "grown out".

Forest and Woodlands

Approximately 15,000 acres of ponderosa pine forest fringe exists in the Lakeview Resource Area. It serves as a transitional zone between the more heavily forested National Forest lands to the west and the sagebrush steppe/high desert habitats that comprise the majority of the resource area lands. In addition, several hundred thousand acres of juniper woodlands occur on the Lakeview Resource Area. None of these lands are classified as commercial forest land. The forestry/woodland program focuses mainly on making special forest products available to the public on an as-needed basis. Timber trespasses (illegal timber cutting) occasionally happen and are investigated whenever they occur.

In FY 2003, about 109 acres of the Toolbox wildfire area was salvage logged, yielding about 0.344 MM board feet of timber.

Numerous permits were issued in FY 2002-2004 for firewood, boughs, posts, and poles, primarily from juniper woodlands (Table S-1). Firewood permits constituted the majority of all permits issued.

Further information concerning the forest and woodland management program (including special forest products) can be obtained by contacting Ken Tillman at 541-947-6112.

Riparian and Wetland Communities

* Continued a Riparian Ecological Site Inventory (ESI). Completed 55 miles of inventory in FY 2002 and 2003. Completed an additinal 30 miles in FY 2004.

* Completed about 2,000 acres of wetland proper functioning condition (PFC) inventory in FY 2002.

Special Status Plants

* During plant surveys, three new sensitive plant sites were located (*Symphoricarpos longiflorus* and *Pedicularis centranthera*).

* Constructed a small exclosure fence in FY 2003 along Clover Creek to protect a site containing *Botrychium crenulatum*, a sensitive species.

* Introduced plugs of the sensitive *Pleuropogon oregonus* (Oregon semaphore grass) into several new locations along Mud, Camas, and Parsnip Creeks.

Noxious Weeds

The encroachment of noxious weeds across the resource area has the potential to impact native plant communities and adjacent agricultural crop lands, to render habitats unusable by some wildlife, decrease property values, reduce biological diversity, and increase the economic burden to maintain recreation and wilderness areas. Over the last several years, the noxious weed management program has continued to inventory for new sites, manage known sites, and coordinate treatment with adjacent agencies and private landowners.

* In FY 2002, about 2,000 new acres were inventoried for noxious weeds. About 400 acres in Lake County were treated under contract with chemical methods. About 300 acres were treated manually by BLM personnel.

* In FY 2003, about 2,500 new acres were inventoried for weeds. About 1,040 acres were treated chemically under contract. An additional 300 acres were treated manually by BLM personnel.

* In FY 2004, about 2,000 new acres were inventoried for weeds. About 800 acres were treated chemically under contract. About 150 acres were treated manually by BLM personnel.

* In FY 2004, the integrated noxious weed management plan was updated (EA#OR-010-2004-03).

* During the past 3 years, the BLM continued to develop partnerships with private landowners, other Federal agencies, state, and county governments to more effectively treat weed "hot spots" across ownerships on a landscape scale.

* Clover Flat/Red Knoll sagegrouse habitat restoration project (EA#OR-010-2003-01) involves aggressively treating medusahead rye infestations on up to 5,000 acres of BLM and

private lands in the Chewaucan watershed. Project planning was completed in FY 2004. Implementation began in early FY 2005.

* In FY 2004, initiated a cooperative weed treatment project with the Oregon Department of Agriculture and adjacent private landowners designed to treat perrenial pepperweed in the Warner Wetlands ACEC and surrounding private lands.

More information on the noxious weed management program can be obtained by contacting Erin McConnell at 541-947-6133.

Soils and Microbiotic Crusts

Management activities have focused mainly on soil and microbiotic crust inventory. For further information, contact Desi Zamudio (soils) at 541-947-6253 or Lucile Housley at 541-947-6131.

* An Ecological Site Inventory (ESI) has been on-going within the Lakeview Resource Area for about 20 years. This inventory included collection of third order soil survey data and some information on crust cover. Field mapping was completed in Fiscal Year (FY) 2003. A total of about 75,600 acres were inventoried in FY 2002 and 2003. This inventory was performed in cooperation with the Natural Resources Conservation Service (NRCS). The BLM was responsible for collecting data on BLM-administered lands while the NRCS was responsible for private and some Forest Service lands within Lake and Harney Counties. The NRCS recently published soil data in paper form for the southern third of Lake County (titled *Soil Survey of Lake County, Oregon, Southern Part*). Mapping for Harney County, though complete, has not been published to date. Copies of the soil maps/data are available for viewing at the NRCS office in Burns, Oregon.

The NRCS has also completed the digitizing of the southern Lake County soil survey data for use in a geographic information system (GIS). This data is available from their website at http://www.nrcs.usda.gov/technical/. The Burns District has recently completed digitizing the soil data for all of Harney County. Soil data for northern Lake County is in the process of being entered into the GIS. It is expected that the NRCS will also publish this soil survey in paper form in the future. The results of this inventory work will be used for project planning as the *Lakeview RMP* is implemented over time. For more information on this inventory, contact Threresa Romasko at 541-947-6143.

Water Resources/Watershed Health

Management activities have included water quality monitoring, non-point source pollution control, and water rights documentation. For further information, contact Barbara Machado at 541-947-6184.

* Continued a water rights inventory in FY 2002 and 2003.

* Completed geomorphic inventories at 19 sites in FY 2002 and 2003. Completed geomorphic inventories at 6 sites in FY 2004.

Fish and Aquatic Habitat

Thousands of acres of intermittent and permanent lakes, ponds, reservoirs, wetlands, and playas exist with the resource area. About 131 stream miles of riparian habitat occur within the resource area. Management activities include riparian monitoring, implementation of aquatic habitat improvement projects, and project maintenance.

The fisheries program ensures that aquatic habitats are protected or enhanced during the operation of the BLM's multiple use programs. These programs are coordinated with habitat management efforts of the Oregon Department of Fish and Wildlife (ODFW). This is achieved by conducting habitat/animal surveys, developing habitat management or other special plans to ensure protection of fish values, designing habitat enhancement projects, and monitoring. For further information, contact Alan Munhall at 541-947-6120.

* Drake and Parsnip Creeks rehabilitation projects included constructing livestock exclosures, juniper removal, and headcut stabilization work. The Drake Creek project was completed in FY 2003.

* Initiated repair and expansion of spring developments/riparian exclosures at 4 springs to improve riparian conditions in the Burro Spring and Hill Camp allotments in FY 2004 (EA#OR-010-2004-10).

* Initiated a large-wood stream enhancement project along Silver Creek (EA#OR-010-2004-04).

* Initiated expansion and maintenance of the Spearpoint Spring, Cox Springs, and Buck Creek exclosures in FY 2004 to keep livestock out of riparian areas and improve riparian habitat conditions. Buck Creek has been completed.

Wildlife and Wildlife Habitat

The wildlife program ensures that animal habitats are protected or enhanced during the operation of the BLM's multiple use programs. These programs are coordinated with habitat management efforts of the Oregon Department of Fish and Wildlife (ODFW). This is achieved by conducting habitat/animal surveys, developing habitat management or other special plans to ensure protection of wildlife values, designing habitat enhancement projects, and monitoring. For further information, contact Vern Stofleth or Todd Forbes at 541-947-2177.

* Continued Warner Wetland habitat maintenance and enhancement projects including dike, head gate, well, pump, and fence maintenance, where needed. The Hart Bar well was replaced in FY 2004 to allow more reliable pumping of water into the Hart Bar interpretive wetland area. The Hart Lake pump intake area was cleaned out and maintained in FY 2004. Ducks Unlimited is assisting with design work to improve the intake structure such that water can be pumped from Hart Lake into the wetland complex during low water years. This cooperative project will be constructed in FY2005-2006.

* Cooperated with the Animal and Plant Health Inspection Service (APHIS), ODFW, and adjacent National Forests in the preparation of annual animal damage control work plans covering the management of coyotes and problem cougars and bears on public lands. APHIS is the responsible lead agency for this effort. Due to the lack of matching local funds, APHIS discontinued the program in FY 2002. Little activity will occur in Lake County the future unless the program is reinitiated.

* Continued to maintain big game and upland bird water holes/guzzlers in cooperation with the Oregon Department of Fish and Wildlife (ODFW). Approximately 40 guzzlers are maintained each year. In FY 2002, 3 guzzlers in the Abert Rim WSA were replaced following a recent wildfire. In FY2004, one new guzzler was installed on Coffee Pot Rim. Also in FY2004, about 100 wildlife escape ramps were installed in existing water troughs to prevent wildlife drowning.

* Initiated a plan for vegetation restoration treatments in the Deep Creek watershed (EA#OR-010-2003-05).

Special Status Animals

* Conducted mid-winter bald eagle surveys.

* Continued to assist in the development of a long-term sage-grouse protection strategy. The ODFW is the lead agency in this effort.

* Clover Flat/Red Knoll sagegrouse habitat restoration project (EA#OR-010-2003-01) involves aggressively treating medusahead rye infestations on up to 5,000 acres of BLM and private lands in the Chewaucan watershed. Project planning was completed in FY 2004. Implementation began in early FY 2005.

* Initiated a plan for bighorn sheep habitat restoration on Coleman Rim (EA#OR-010-2003-02).

* Initiated a plan to create fuel breaks along existing roads in sagebrush habitat to assist in future wildfire suppression and protect sage-grouse habitat (EA#OR-010-2004-11).

* In FY2002-2003, completed about 50,000 acres of pygmy rabbit habitat and about 1,000 acres of sage-grouse habitat inventories. In FY2004, completed about 10,000 acres of pygmy rabbit habitat and about 500 acres of sage-grouse habitat inventories.

Livestock Grazing

The Lakeview Resource Area manages livestock grazing activities on most of the 3.2 million acres under its administration. Each year, grazing licenses authorizing animal unit months (AUMs) are issued for about 125 public land allotments. A percentage (37.5%) of the grazing fees collected goes into the U.S. Treasury, but most is returned to the county (12.5%) or BLM District (50%) in which it originated to be used for range improvement projects designed to benefit wildlife and watershed resources while improving conditions for livestock grazing.

The range staff collect periodic inventory data and monitor range conditions. Information on vegetation utilization levels and trend are collected and evaluated to determine whether allotment goals and objectives are being met. This data is summarized in the monitoring section.

The range staff also oversee the completion of Rangeland Health Assessments and range improvement projects. A number of range improvement projects have been proposed or implemented recently. These are discussed later in this section.

Further information concerning the range management program can be obtained by contacting Bob Hopper at 541-947-6140.

Rangeland Standards and Guidelines

One area of major emphasis for the range management program has been conducting assessments required by the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management*. The five standards include:

Standard 1 - Upland Watershed Function: Upland soils exhibit infiltration and permeability rates, moisture storage, and stability that are appropriate to soil, climate, and land form.

Standard 2 - Riparian/Wetland Watershed Function: Riparian-wetland areas are in properly functioning physical condition appropriate to soil, climate, and land form.

Standard 3 - Ecological Processes: Healthy, productive, and diverse plant and animal populations and communities appropriate to soil, climate, and land form are supported by ecological processes of nutrient cycling, energy flow, and the hydrologic cycle.

Standard 4 - Water Quality: Surface water and groundwater quality, influenced by agency actions, complies with State water quality standards.

Standard 5 - Native, Threatened and Endangered, and Locally Important Species: Habitats support healthy, productive, and diverse populations and communities of native plants and animals (including special status species and species of local importance) appropriate to soil, climate, and land form.

Standard and Guideline Assessments were initiated in 1998, are conducted by an inter-disciplinary team, and must be completed for all allotments within 10 years. The results of assessments completed as of FY2004 are summarized in Table 1. Those proposed for completion in FY2005 are also listed in the table. Copies of the full assessments are available upon request. Many are also available on-line at http://www.or.blm.gov/Lakeview/whatwedo/ Rangeland_Health.htm.

Those allotments where a standard was not met *and* where livestock grazing was determined to be a contributing cause

for not meeting the standard, require changes be made in grazing within two years to move management towards meeting the standard. Many of the projects reported in this document have been proposed and/or completed to improve range conditions and move management towards meeting these standards. For further information on this assessment process, contact Bob Hopper at (541) 947-6140.

Range Improvement Projects

This portion of the update contains a list of a number of projects that have been completed or were in the planning stages during FY 2002-2004 for all allotments except Beaty Butte (0600; discussed separately in a later section). In addition, a number of existing projects, such as water holes, spring developments, pipelines, wells, and fences, have been monitored and maintained, as necessary.

Cattle guards:

* Six were completed in FY 2002-2003 in allotments 0511, 0517, and 10103. Another two existing cattle guards were maintained. No cattle guards were completed or maintained in FY 2004.

Fencing:

* Completed about 50 miles of new temporary and permanent fences in FY 2002-2003 within allotments 0409, 0418, 0420, 0511, 0514, 0515, 0516, 0517, 0523, 0701, 0705, 0706, 01000, and 10103. Much of this was associated with fire rehabilitation projects. About 8 miles of fence was reconstructed in allotments 0507 and 0523. One additional mile of fence was maintained. In FY 2004, about 8.5 miles of new fences in four separate projects were completed. About three miles of existing fence representing two separate projects were reconstructed. About one mile of fence was maintained.

* The remaining 1 mile of the 4-mile Round Mountain (0211)/Fremont National Forest Boundary Fence was completed in FY 2002.

* Smith Fence project was completed in allotment 0902 in FY 2004 (EA#OR-010-2004-01). This consisted of removing about one mile of existing fence and replacing with about one mile of new fence in a new location to eliminate a livestock "trap".

* Constructed a new fence in allotment 0404 to manage cattle use on BLM lands separate from adjoining private lands.

* Constructed a new pasture division fence in allotment 0430.

* Planning for the Goodrich Pasture fence adjustment project was initiated in FY 2004 (EA#OR-010-2004-02). This consists of constructing about 2.5 miles of new fence in allotment 10103 to provide better livestock distribution.

* Initiated a temporary exclosure fence project in the Flagstaff Bench Pasture of allotment 0523.

Water Development:

* Conducted temporary water hauling and placed temporary troughs in allotment 10103 in August 2003 to provide water for livestock in areas of previous light use and provide better livestock distribution.

* Swamp Lake well and pipeline (EA#OR-010-2003-06) was constructed in Warner Lakes allotment (0523) in FY 2003.

* Completed a pipeline extension and water trough placement project in allotments 0430 and 0435 in FY 2004.

* Water hole maintenance was planned and/or completed in allotments 0216, 0709, 0404, 10103, and 0428 allotments in FY 2002-2004. Waterhole maintenance specifically within WSA's throughout the resource area was initiated in FY 2002 (EA#OR-010-2002-02) and is expected to occur on an as-needed basis over many years.

* Reservoir maintenance at Damewood Reservoir (allotment 0100) was initiated in FY 2002.

* Two new wells were constructed in allotment 0428 and one well was reconstructed in allotment 0905 in FY 2003.

Seedings:

* Initiated planning for crested wheatgrass seeding maintenance projects in allotments 0422 and 0404 in FY 2004.

Refer to the "Wildfire and Rehabilitation" section earlier in the document for more information on seedings completed as part of recent wildfire rehabilitation efforts.

Grazing Permit/Lease Renewals and Changes

* A total of 14 grazing permits or leases were renewed in FY 2002-2003. Twenty permits/leases were renewed in FY 2004.

* Initiated temporary transfer of grazing use within allotment 0523 in FY 2004.

* Initiated a minor change is season of use within allotment 0404 in FY 2004.

Allotment Management Plans (AMPs)

Beaty Butte AMP Implementation:

The *Beaty Butte AMP* was completed in 1998. It covers management of about 500,000 acres of public land and 40,000 acres of private land. This allotment (0600) is the second largest in the Lakeview Resource Area and is located east of Adel in southeastern Lake and southwestern Harney Counties, Oregon.

To date, a number of prescribed fires, pasture fences, and other projects have been completed or are in the process of implementation. These projects have been designed to move

Table 1. Summary of rangeland health standard assessments, 1998–2004

Allotment Number	Allotment Name	Completion Date[3]	Rangeland Health Standards[4]				
			Upland Function	Riparian/ Wetland Function	Ecological Processes	Water Quality	Sensitive Species
00100	Peters Creek	2002	M	N/A	NM	N/A	M
00103	ZX Christmas Lake	2001	NM	N/A	NM	M	M
00200	Blue Creek	2003	M	M	M	N/A	M
00201	Vinyard	2000	M	M	M	M	M
00202	Hickey Individual	1999	M	M	M	M	M
00203	O'Keeffe	1999	M	M	M	M	M
00204	Crump Individual	2002	M	N/A	M	N/A	M
00205	Greaser Drift	2002	M	M	M	N/A	M
00206	Lane Plan II	1999	M	M	M	M	M
00207	Lane Plan I	1999	M	M	M	M	M
00208	Sagehen	1999	M	M	M	M	M
00209	Schadler	2002	M	M	M	N/A	M
00210	Rim	2002	M	M	NM	N/A	M
00211	Round Mountain	1999	M	NM[1]	M	M	M
00212	Rahilly-Gravelly	1999	M	M	M	M	M
00213	Burro Springs	2004	M	NM	M	N/A	M
00214	Chuckar Spring	2004	M	M	M	N/A	M
00215	Hill Camp	2004	M	NM	M	N/A	M
00216	O'Keeffe Individual	1999	M	N/A	M	M	M
00217	Cox Individual	2005					
00218	Sandy Seeding	2002	M	N/A	M	N/A	M
00219	Cahill FFR	2004	M	M	M	M	M
00222	Fisher Lake	2002	M	M	M	N/A	M
00223	Hickey FFR	2002	M	NM	M	N/A	M
00401	FFR	2002	M	N/A	NM	N/A	M
00404	Willow Creek	2004	M	M	NM	NM	NM
00406	West Clover Flat	2005					
00407	Clover Flat	2003	M	M	M	M	M
00416	White Rock	2005					
00418	Squaw Lake	2002	M	N/A	NM	N/A	M
00419	St. Patricks	2004	M	M	M	M	M
00420	Egli Rim	2004	M	M	M	M	M
00421	Rosebud	2004	M	M	M	M	M
00422	Paisley Flat	2004	M	M	NM	N/A	M
00425	Pike Ranch	2003	M	N/A	M	N/A	M
00427	XL	2003	NM	N/A	NM	N/A	M
00428	Sheeprock	2001	NM	N/A	M	N/A	M
00429	Twin Lakes	2004	M	M	M	M	M
00431	Narrows	2002	M	M	NM	M	M
00432	Coleman Seeding	2003	NM	N/A	NM	N/A	M
00433	East Jug	2002	M	M	M	M	M
00435	Shalerock	2005					
00501	FFR Flynn	2003	M	NM	M	M	M
00502	FFR Fitzgerald	2005					
00503	FFR Taylor	2003	M	M	M	N/A	M
00505	FFR Lynch	2003	M	N/A	M	N/A	M
00507	FFR Laird	2004	M	M	M	M	M
00508	Rock Creek Ranch	2002	M	N/A	M	N/A	M
00509	Cox Butte	2002	M	M	M	N/A	M
00510	Orejana Rim	2002	M	M	M	N/A	M
00511	Northeast Warner	2003	M	M	M	N/A	M
00512	Bluejoint	2004	NM	M	NM	M	M
00514	Corn Lake	2003	M	M	M	N/A	M
00515	Juniper Mountain	2004	NM	NM	M	M	M

Table 1. Summary of rangeland health standard assessments, 1998–2004 (continued)

Allotment Number	Allotment Name	Completion Date[3]	Rangeland Health Standards[4]				
			Upland Function	Riparian/ Wetland Function	Ecological Processes	Water Quality	Sensitive Species
00516	Rabbit Basin	2003	M	M	M	N/A	M
00517	Coyote-Colvin	2000	M	NM[1]	M	M	M
00518	Clover Creek	2003	M	M	M	M	M
00519	Fish Creek	1999	M	M	M	M	M
00520	Lynch-Flynn	2003	M	M	M	N/A	M
00521	Priday Reservoir	2003	M	M	M	N/A	M
00522	Abert Seeding	2003	NM	N/A	NM	N/A	M
00523	Warner Lakes	2004	M	M	M	M	M
00524	Lane Individual	2002	M	M	M	M	M
00529	South Rabbit Hills	2005					
00530	East Rabbit Hills	2003	M	M	M	N/A	M
00531	North Rabbit Hills	2003	M	M	M	N/A	M
00600	Beaty Butte	1998	M	NM[2]	M	N/A	M
00700	Silver Creek-Bridge Creek	2004	M	M	M	M	M
00701	Upper Bridge Creek	2004	M	M	M	M	M
00702	Buck Creek-Bridge Creek	2004	M	M	M	M	M
00703	Bear Creek	2004	M	M	M	M	M
00704	Ward Lake	2004	M	M	M	M	M
00705	Oatman Flat	2004	M	M	M	M	M
00706	Rye Ranch	2002	M	N/A	M	N/A	M
00707	Tuft Butte	2004	M	M	M	M	M
00708	Arrow Gap	2004	M	M	M	M	M
00709	Dead Indian Duncan	2004	M	M	M	M	M
00710	Murdock	2004	M	M	M	M	M
00711	South Hayes Butte	2004	M	M	M	M	M
00712	Bridge Well	2004	M	M	M	M	M
00713	Silver Creek	2004	M	M	M	M	M
00714	Table Rock	2004	M	M	M	M	M
00716	Silver Lake Bed	2004	M	M	M	M	M
00900	Fremont	2005					
00901	Wastina	2002	M	N/A	M	N/A	M
00902	Cinder Butte	2002	M	N/A	NM	N/A	NM
00906	North Webster	2002	M	N/A	M	N/A	M
00909	Button Springs	2005					
00911	Valley	2002	M	N/A	NM	N/A	NM
00914	West Green Mountain	2005					
01000	Little Juniper Spring	2003	M	M	M	N/A	M
01001	Alkali Lake	2003	M	N/A	M	N/A	M
01002	FFR Bar 75 Ranch	2003	M	M	M	N/A	M
01073	South Butte Valley	2003	M	N/A	M	N/A	M
01300	Becraft	2005					
01301	Crooked Creek	2004	M	N/A	M	M	M
01306	Dicks Creek	2002	M	M	M	M	M

[1] Changes in riparian grazing have resulted in significant progress towards attainment of this standard.
[2] Standard not being met; however, a jurisdictional transfer with the USFWS has removed this area from livestock grazing.
[3] Fiscal Year 2005 completion is a projected target date.
[4] M = met; NM = not met; N/A = not applicable.

the area towards meeting the goals and objectives listed in the AMP, as well as deal with unforeseen circumstances arising since the AMP was completed (i.e. wildfire rehabilitation) and are summarized in Table 2. Persons wishing more information on the implementation of the *Beaty Butte AMP* may contact Les Boothe at 541-947-6141.

Wild Horses

Wild horse management focuses on managing horse populations within two wild horse Herd Management Areas (HMA's) which are located in the Paisley Desert and Beaty Butte areas. However, some horses occur outside of these two HMA's. The goal of the program is to keep horses within the HMA's and to manage horse numbers at viable levels, while maintaining the natural habitat in a "thriving ecological balance".

Existing minimum and maximum herd numbers were revised in the *Lakeview RMP*. For the Paisley HMA, appropriate herd numbers are 60 to 150 horses. For the Beaty Butte HMA, the appropriate herd levels are 100 to 250 horses.

Horse census data through the year 2001 are reported in the Table 2-30 of the *Lakeview Proposed RMP/Final EIS*. Census data for FY 2002-2004 is reported in Table 3.

Management efforts also include monitoring horse numbers and range conditions in the HMA's and inspecting adopted horse facilities. Excess animals are gathered at periodic intervals (generally about every 4-5 years) and made available for adoption to the public through the "Adopt-a-Horse" program.

Horse gathers conducted through year 2001 are reported in Table 2-11 of the *Lakeview Proposed RMP/Final EIS.* Horses were last gathered from the Paisley HMA in November 2003. One hundred and thirty-five animals were removed. Horses were gathered from the Beaty Butte HMA and surrounding area during late summer of 2004. A total of 645 horses were removed.

Additional management activities have included:

* Placement of temporary water troughs and conducting emergency water hauling in the
Paisley Desert HMA to provide water for horses during drought conditions in the summer of 2003.

* Completing a pipeline extension and water trough project in allotment 10103 during FY 2004 to provide water for horses in the Paisley Desert HMA during drought conditions.

* Placement of temporary horse traps within several WSA's to facilitate efficient removal of the excess horses (EA#OR-010-2004-09) during the Beaty Butte herd gather in FY 2004,.

More information can be obtained by contacting Theresa Romasko at 541-947-6143.

Special Management Areas

Special management areas are sites or areas that contain some significant resource value that must be actively managed or protected by law, regulation, or policy. Examples of these areas within the Lakeview Resource Area include wild and scenic rivers, wilderness study areas (WSA), areas of critical environmental concern (ACEC), research natural areas (RNA), and significant caves. These are discussed in the following section.

Areas of Critical Environmental Concern (ACECs)/ Research Natural Areas (RNAs)

BLM regulations (43 CFR part 1610) define an ACEC as an area "within the public lands where special management attention is required (when such areas are developed or used or where no development is required) to protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes, or to protect life and safety from natural hazards." ACEC designation is accomplished through the land use planning process.

According to the Oregon Natural Heritage Program (ONHP) the purpose for RNAs is: "to preserve examples of all significant natural ecosystems for comparison with those influenced by man; to provide educational and research areas for ecological and environmental studies; and to preserve gene pools of typical and endangered plants and animals." All BLM RNA's are designated and managed as ACECs.

To be designated as an ACEC, an area must meet the relevance and importance criteria listed in *BLM 1613 Manual* and require special management. Each of the ACECs were evaluated against these criteria. The results of this evaluation process are documented in *Areas of Critical Environmental Concern Nomination Analysis Report* and Appendix I of the *Lakeview Proposed RMP/Final EIS*. Both documents are available in hardcopy form upon request or on-line at http://www.or.blm.gov/ lakeview/planning.

In FY 2002-2003, four existing ACECs, totaling 165,935 acres, were under special management: Devil's Garden Lava Bed, Lost Forest RNA/Sand Dunes/Fossil Lake, Warner Wetlands, and Lake Abert. The completion of the *Lakeview RMP/ROD* in early FY 2004, designated and initiated special management for thirteen new ACEC/RNAs totaling 149,165 acres.

Research is encouraged within ACEC/RNAs. These are summarized in the "Research" section later in this document. Currently, only the Warner Wetlands and Lake Abert ACECs have detailed management plans. However, special management direction for each area is contained in the *Lakeview RMP/ROD*. In addition, many of these areas overlap with WSAs. Management of these areas is also handled under the *Wilderness Interim Management Policy*.

* In FY 2004, individual management plans were drafted for 4 areas: Guano Creek/Sink Lakes, Lost Forest, Black Hills, and Devils Garden. These plans should be completed in FY 2005.

Table 2 . Cumulative list of projects implemented in the Beaty Butte allotment

Project Name	Year	Description
Jack Creek fence	1999	2.8 mile-long fence was constructed which divided the existing Jack Creek pasture into two pastures (Jack Creek South and Corral Lake). This fence allowed for implementation of the four pasture rest rotation grazing system on the west side of the allotment. Identified as project (B) in the *Beaty Butte AMP*.
Buckaroo Pass fence	1999	9.25 mile-long fence was constructed across the center of the existing Common Pasture, designed to partially divide the pasture into North and South Common Pastures. This allowed for better implementation of a rest rotation grazing system. Identified as project (b) in the *Beaty Butte AMP*.
Guano Creek fence	1998	4.75 mile-long fence was constructed which divided Guano Creek from the North Lake Pasture and excluded grazing from Guano Creek. Identified as project (A) in the *Beaty Butte AMP*. This fence serves as the southern boundary for the Cooperative Management Area managed by the U.S. Fish and Wildlife Service.
Spaulding prescribed burns	1998	Prescribed fire was reintroduced to about 4,406 acres north and south of Spaulding Reservoir. These areas are shown as prescribed fires #6 and 7 in the *Beaty Butte AMP*. This area was rested for 3 growing seasons following the burn.
Lone Grave prescribed burns	1999	Prescribed fire was reintroduced to about 17,500 acres in the Lone Grave Butte area. This included the areas shown as prescribed fires #1, 2, and 3 in the *Beaty Butte AMP*. This area was rested for 2 full years following the burn.
Beaty Butte wildfire and rehabilitation	2000	About 35,000 of private and BLM-managed lands in the Lakeview and Burns Districts burned on the south, north, and northeast side of Beaty Butte. About 15,158 acres were in the Lakeview District. Portions of the Lakeview District were rehabilitated and included: 2,025 acres drill/aerial seeded with a mixture of crested wheatgrass, native grasses and forbs, sagebrush, and forage kochia to re-establish perennial vegetation; 450 acres of drainages on the east side of Beaty Butte were aerial seeded by helicopter with annual rye and basin wildrye to establish vegetation and reduce potential erosion. About 30 straw bale sediment traps were installed along East and West Gulches to reduce soil erosion and runoff until vegetation re-established. Weed inventory and control were incorporated into the plan. The burn area was rested during the 2001 and 2002 growing seasons.
Cattle guards	2002 2004	Two installed in southern part of allotment at Sagehen Creek. Two installed in northern part of allotment.
Pipelines	2000 2001 2002	Replaced an existing pipeline in Hawk Valley pasture. Constructed about 0.5 miles of new, temporary pipeline in Hawk Valley to provide water for livestock in the southeast part of the allotment during drought conditions. Completed about 0.2 miles of new pipeline at West Twin Spring. Identified as project (g) in the *Beaty Butte AMP*.
Water source maintenance	2000 2002 2003	The existing dike at Rock Reservoir was repaired. This was identified as project (j) in the *Beaty Butte AMP*. The reservoir is located on the south end of the Common Pasture about half way between Dixon water hole and South Corral Spring. One waterhole was maintained: MC Reservoir. One waterhole was maintained: Twin Springs.
Temporary water sources	2003	Temporary water troughs were placed and water hauled in by truck during to provide livestock water and better distribution of livestock in the northern part of in the North Pasture.
Exclosure maintenance	2002 2004	Exclosure fences were reconstructed around East Ranch and State Block waterholes in the southern part of the allotment. Exclosure fences were maintained at Buena Vista and Buckaroo Pass. Seven exclosure fences totaling about 3.25 miles were maintained: South Corral, Willow, Wilson, Sunset, West Twin, and DL Springs, and Guano Creek.

Table 2. Cumulative list of projects implemented in the Beaty Butte allotment (continued)

Project Name	Year	Description
East/West Gulch electric fences (EA#OR-010-2002-04)	2002	Constructed three miles of temporary electric fences between natural topographic features to keep cattle grazing in the North Pasture during 2003 growing season from drifting into the fire rehab area, allowing rest from grazing.
Mahagony Butte electric fence	2003	Constructed about one mile of temporary electric fence near Mahogany Butte to keep livestock grazing in the North Pasture during 2003 growing season out of the wildfire rehab area.
AMP Amendment/ grazing permit adjustment	2001	An adjustment was made to the grazing permit and grazing schedule published in the *Beaty Butte AMP*. The grazing decision was issued on December 1, 2000 and extended grazing on the allotment from October 15 to December 15. This provided more management flexibility and more dormant season grazing, but did not increase the permitted AUMS.
Buckaroo Pass fence extension and water developments (EA#OR-010-2004-07)	Decision under appeal	Proposal to construct about 9 miles of fence, 4 fence "traps" around 4 waterholes, about 1.75 miles of pipelines, and 2 water troughs. The purpose of the project is to extend and complete a fence to divide the North and South Pastures and better distribute/manage livestock within the allotment.
East-West Gulch fence, water developments, and road relocation (EA#OR-010-2004-08)	EA in progress	Proposal to construct a riparian pasture/exclosure fence, 7.25 miles of pipelines, 8 water troughs, as well as rehab and relocate about 1.2 miles of road. The purpose of the project is to promote recovery of small riparian areas within the North Pasture.

Table 3. Wild horse census data, FY2002-2004

Year	Paisley Desert HMA		Beaty Butte HMA	
	Total	Foals	Total	Foals
2002	177	40	332	67
2003	212		482*	
2004	118		745*	

* includes horses located outside the HMA boundary.

* In FY 2004, approximately 40 miles of roads were closed via gates or signage within WSAs and ACECs. Open road number signs were also installed. New off-highway vehicle designation signage was also placed along some WSA and ACEC boundaries.

* In FY 2004, volunteers rebuilt a section of fence along the boundary of the Lost Forest ACEC/RNA.

* Wetland habitat maintenance and enhancement projects have been continued at the Warner Wetlands ACEC including weed treatments and dike, head gate, and fence maintenance, where needed.

Those desiring more information on ACECs or RNAs should contact Lucile Housley at 541-947-6131.

Wilderness Study Areas

In 1991, the BLM in Oregon completed the wilderness inventory process required under Section 603 of the Federal Land Policy and Management Act (FLPMA). The results of this inventory were published in the *Wilderness Study Report for Oregon*. This report recommended all or portions of 9 of the 12 wilderness study areas (WSAs) in the Lakeview Resource Area (totaling about 274,200 out of 439,126 acres) be designated as wilderness. The report was signed by the Secretary of the Interior and was forwarded to the President.

Until Congress acts on final wilderness designation, all 12 WSAs continue to be managed under the *Wilderness Interim Management Policy* (IMP) so as not to impair their wilderness values. This includes conducting routine patrols, restricting off-road vehicle use, and other interim measures specified in the IMP.

In preparation for the *Lakeview RMP*, about 3,140 acres of land acquired since 1991 within or adjacent to three existing WSAs (Fish Creek Rim, Abert Rim, and Guano Creek) were examined for wilderness characteristics under Section 202 of FLPMA. Approximately 1,195 acres were found to have wilderness character and were initially recommended for addition to those three WSAs in the *Lakeview Proposed RMP/Final EIS*. However, after this document went to press, a settlement agreement in an on-going court case (*Utah v. Norton*) was reached that stated the authority to establish WSAs expired in 1993. Though the settlement agreement acknowledged BLM's authority to inventory public lands for wilderness character and to consider such information during land use planning, the BLM cannot create new WSAs or add to existing WSA's.

The settlement agreement clarified that the BLM may still specify protective measures in the land use plan for lands with wilderness character, but they cannot be managed under the IMP. Therefore, these acquired lands are being managed to protect their wilderness character, in part through overlapping ACEC management direction. In addition, future proposed actions in these three areas will be evaluated through the NEPA process. Actions that would negatively impact the wilderness character will be mitigated.

* In the summer of 2001, the BLM began updating the inventory of roads and ways within WSAs using global positioning system technology (GPS). Hawk Mountain, Fish Creek Rim, and Abert Rim WSAs were inventoried in FY 2002. Devils Garden, Four Craters, and Squaw Ridge WSAs were inventoried in FY 2003. This GPS data has been corrected and input into the district GIS.

* Removed a small dump area, covering about 0.25 acres, containing non-hazardous debris from the Diablo Mountain WSA in FY 2002.

* The wooden fence on the other side of the road at the walk-in entrance to Crack-in-the-Ground (Four Craters WSA) was replaced with a stacked rock wall fence in FY 2002.

* Two hazardous fuel reduction projects are currently being conducted within or adjacent to WSAs. One is in Colvin Timbers, within Abert Rim WSA; the other is along the northern border of Devils Garden ACEC/WSA (EA#OR-010-2001-03).

*Two additional projects are proposed to reduce hazardous fuel loading and reintroduce fire as a natural process. These include the Squaw Ridge WSA Fuel Treatment project (EA#OR-010-2004-05) and the Deep Creek Watershed Vegetation Treatment Plan (EA#OR-010-2003-05) (Fish Creek Rim WSA). Refer to fire management section for more information.

* In FY 2003, a small abandoned TV translator site was removed from the Fish Creek Rim WSA.

* In FY 2003, a protective fence and informational bulletin board were installed on the boundary of the Sand Dunes WSA.

* In FY 2004, approximately 40 miles of roads were closed via gates or signage within WSAs and ACECs. Open road number signs were also installed. New off-highway vehicle designation signage was also placed along some WSA and ACEC boundaries.

Livestock grazing and wild horse management activities conducted within WSAs are discussed in those respective sections of this document. More information on wilderness management can be obtained by contacting Trish Lindaman at 541-947-6136 or Gretchen Burris at 541-947-6113.

Wild and Scenic Rivers

The Lakeview Resource Area, in conjunction with the Fremont National Forest, has evaluated all rivers within the resource area for potential eligibility for further study under the Wild and Scenic River Act. This evaluation process revealed three stream segments that were potentially eligible for designation as a wild or scenic river: Honey Creek, Twelve-Mile Creek, and Guano Creek. A suitability assessment was then completed during the development of the *Lakeview RMP* to determine whether the three eligible river segments should be recommended to Congress for inclusion in the National Wild and Scenic River System. The RMP recommended approxi-

mately 4.4 miles of Twelve-mile Creek in Oregon as suitable for inclusion into the Wild and Scenic River System, with a "recreational" classification. The RMP also recommended an additional 2.2 miles of this river in northern California and Nevada be considered by the California State Director during an on-going land use planning effort for designation and management as a wild and scenic river. (The documentation is available for review in hardcopy form upon request or is available on-line at http://www.or.blm.gov/ Lakeview/Planning/lkvwfoplans/Final_2003RMP/Supporting_Information.htm). Following completion of the *Lakeview RMP*, a private land owner in the vicinity provided feedback to the BLM regarding several errors in the wild and scenic river map (SMA-22) related to land ownership and section line locations published in the RMP. These errors have been corrected and the map has been reprinted as part of the "plan maintenance" actions described later in this document.

The entire 6.6 mile river corridor will be managed in accordance with the management guidelines and standards for recreational class rivers until Congress makes a final decision on this matter. For further information contact Trish Lindaman at 541-947-6136.

Significant Caves

In FY 2004, continued a cave inventory, with 25 caves inventoried. This is part of an ongoing project to locate and evaluate caves for significance under the cave management regulations. Those desiring more information on significant caves should contact Dave Draheim at 541-947-6185.

Cultural/Paleontological Resources

The cultural and paleontological programs identify, plan the appropriate use of, and manage cultural and paleontological resources on public land. These programs must comply with federal and state law governing preservation, as well as the principles of multiple use. The programs strive to protect these resources for tribal, scientific, educational, and research purposes, both for now and the future.

In addition to routine project clearances conducted prior to ground disturbing activities, the Lakeview Resource Area has used archaeological/paleontological field school programs to collect resource data. This has provided field research experience to college students while substantially reducing data collection costs. Refer to the "Research" section of this document for more information.

Proposed projects are also coordinated with tribal governments including the Klamath Tribes, Ft. Bidwell Paiute Tribe, Burns Paiute Tribe, and the Confederated Tribes of the Warm Springs Reservation, to ensure that tribal interests are not impacted.

* At the Shirk Ranch, a condition assessment of the historic structures was completed in FY 2002. Construction of protective gates and tombstone stabilization was completed in FY 2003.

* Plan to install 2 historic site markers at World War II airplane training crash sites in FY 2005.

For further information on the cultural/ paleontolgical resource management programs, contact Bill Cannon at 541-947-6111.

Fire and Hazardous Fuels

The BLM's fire management includes: suppressing wild fires, rehabilitating areas burned by wildfire, and conducting prescribed burns to reduce fuel buildup and benefit wildlife habitat, range conditions, and other resources. Contact Philip Blythe at 541-947-6147 for more information on the fire management program.

Wildfire and Rehabilitation

In FY 2002-2004, approximately 126,212 acres of wildfires occurred on a mosaic of BLM, National Forest, State, and private lands which were actively suppressed.

* In early FY 2002, the BLM completed the planning and began implementing the Juniper Complex fire (2001) rehabilitation project. This included reseeding approximately 6,700 acres of native/non-native grasses, shrubs, and forbs, constructing about 40 miles of temporary and permanent fences, and rest from livestock grazing.

* In FY 2002, weed treatment associated with the Abert fire (2000) rehabilitation plan was completed.

* In July 2002, lightening caused about 1,560 acres of BLM and 240 acres of private rangelands burned in the Tucker Hill wildfire. Fire rehabilitation actions included: aerial seeding of about 1,000 acres and broadcast seeding about 300 acres with native grasses, forbs, and shrubs, construction of one mile of permanent fence, and rehab of one dozer line.

* In July 2002, lightening caused about 8,015 acres of BLM lands, 51,284 acres of Forest Service lands, 52 acres of State lands, and 27,443 acres of private lands to burn in the Toolbox and Silver wildfire areas. Lightening also caused about 882 acres of BLM lands, 23,915 acres of Forest Service lands, 51acres of State lands, and 9,051 acres of private lands to burn in the Winter wildfire area. In FY 2003, fire rehabilitation actions were initiated on BLM lands which included: reseeding about 2,500 acres with grasses, re-planting native tree and shrub seedlings on about 100 acres each, constructing about 7.5 of new fences, reconstructing 3.5 miles of existing fence, and resting the area from grazing.

* In FY 2003, the Flat top fire burned about 86 acres of BLM lands in north central Lake County. Rehabilitation activities were completed in FY 2004 and included seeding the area with a mix of native and non-native grasses, temporary fencing, and rest from grazing season for at least two growing seasons.

* In FY 2004, the Grassy fire burned about 136 acres of BLM lands, 2,031 acres of Forest Service lands, and 1,466 acres

of private lands in central Lake County. Rehabilitation actions were not necessary on BLM lands following the fire.

Prescribed Fire

* The Long Canyon prescribed fire (begun in FY 2001) was completed. About 2,310 acres were treated in FY 2002.

* Two hazardous fuels reduction projects are currently in the process of being implemented: Colvin Timbers (within Abert Rim WSA) and Fort Rock Fringe (northern border of Devils Garden ACEC/WSA. The Colvin Timbers project is partially complete on the ground. The planning has been completed for the Fort Rock Fringe project, with implementation expected in FY 2005.

* Another hazardous fuel reduction and watershed health project is currently in the process of being implemented on the ground, as a joint project with the Fremont National Forest, just south of the town of Paisley. Approximately 6,600 out of 10,000 acres have been treated to date.

* Dead Indian-Duncan hazardous fuels reduction project planning was initiated in FY 2004. This project proposes to treat up to 1,500 acres of sagebrush with heavy juniper encroachment within the Dead Indian-Duncan allotment (0709) to the south of Silver Lake.

* Clover Flat/Red Knoll medusahead reduction/sagegrouse habitat enhancement project. Planning was completed in FY 2004. Burning was Initiated in early FY 2005.

* Squaw Ridge WSA Fuel Treatment project (EA#OR-010-2004-05) planning was initiated in FY 2004. This project will reintroduce fire to about 28,340 acres of the WSA over a 5-10 year period of time. Implementation may begin in FY 2005.

* The Deep Creek Watershed Vegetation Treatment Plan (EA#OR-010-2003-05) is currently under development. This plan proposes to treat up to 16,500 acres of BLM lands within the watershed with mechanical or fire treatments to reduce hazardous fuels and reintroduce fire as a natural process.

Fire Support Facilities

* Initiated expansion of the Lakeview Helibase facility at the Lakeview Airport in FY 2003 to accommodate increased helicopter fire fighting support in the region (EA#OR-010-2003-03).

Recreation and Off-Highway Vehicle Use

This program strives to provide quality recreational opportunities while protecting sensitive resources, to expand visitor services and interpretation, and enhance outdoor recreation through partnerships. Initiatives such as the Back County Byways and Watchable Wildlife provide focus and funding to increase recreation opportunities.

A recreation map series has been published for the north and south halves of the Lakeview Resource Area. These maps are available for purchase at all BLM offices in Oregon and Washington, at some Forest Service offices, and local businesses in Christmas Valley, Summer Lake, Adel, and Plush.

Approximately 10 existing recreational facilities are maintained on an annual basis at Crack-in- the-Ground, Christmas Valley Sand Dunes, Buck Creek, Highway Well Rest Area, Duncan Reservoir, Lake Abert, Green Mountain, Doherty Slide, Sunstone Public Collection Area, and the Warner Wetlands. This includes such things as replacing or repairing visitor registration boxes and counters, picnic tables, signs, and pit toilets.

* A buck and pole fence was constructed at the West Fork Silver Creek primitive camping area to keep vehicles and cattle out of the riparian zone in FY 2002. A similar fence was constructed in FY 2004 as part of National Public Lands Day at Hart Bar to keep cattle out of the day use area.

* New or replacement pit toilets were constructed at the Sunstone Public Collection Area in FY 2002 and the Green Mountain Campground in FY 2003. The old toilet was removed and a new vault toilet constructed at Duncan Reservoir Campground in FY 2004.

* A picnic shelter and barrier fence were constructed at the Sunstone Public Collection Area in FY 2004 as part of National Public Lands Day.

The recreation program also oversees the issuance of commercial and non-commercial special recreation permits (SRPs) for such activities as wilderness therapy schools, hunting guide services, and one-time special events like bicycle races.

* Eleven SRPs were issued in FY 2002-2003, including one wilderness therapy school in FY 2003. The other SRPs were for hunting guide services. One additional SRP was issued in FY 2004 for a wilderness therapy school. Both therapy school permits were monitored.

* Provided increased patrols of high use recreation areas during the summer months.

For further information concerning the recreation program contact Gretchen Burris at 541-947-6113.

Energy and Minerals

This program focuses mainly on administration of mining claims (sunstones, perlite, and diatomaceous earth), leasable minerals (sodium and geothermal resources), and saleable minerals (sand, gravel, and decorative stone) on public lands. Major work in FY 2002-2004 included processing gravel/rock sales and free use permits, conducting mining compliance checks, reviewing proposed mining plans of operation, and mining claim occupancy determinations. Wind energy activities are discussed under the following Land Tenure and Rights-of-Ways section.

* Oil-Dri recently closed its diatomite mining operation on BLM and private lands in northern Lake County. Discussions with the BLM and Oregon Department of Geology and Mineral Industries (DOGAMI) are on-going regarding the release of its mining bond for reclaimed areas on BLM lands. The BLM is monitoring reclaimed areas and expects DOGAMI to release some of the bond in the near future. Reclamation monitoring will continue until 2006.

For further information, contact Rebecca Lange at 541-947-61114 or Ken Tillman at 541-947-6112.

Land Tenure and Rights-of-Way

This program supports other resource management programs and authorizes specific land uses by the public. These actions include land use authorizations (granting easements and rights-of-ways), land sales, land acquisitions, exchanges, and control of unauthorized uses (i.e. trespass violations).

* In FY 2002-2003, 4 utility rights-of-ways (totaling about 22 miles) and 5 road rights-of-ways (totaling about 18 miles) were granted. Two additional rights-of-ways (covering about 4,433 acres were granted for wind energy feasibility studies.

* In FY 2004, 2 utility rights-of-ways (totaling about 22 miles) and 3 road rights-of-ways (totaling about 5.5 miles) were granted. One additional right-of-way (covering about 1 acre) was granted for a wind energy study.

Further information on this program can be obtained by contacting Dan Stewardson at 541-947-6115.

Roads and Transportation

This program supports other resource management programs, as well as provides access to public lands. Road management actions include transportation plan update, road maintenance, and both seasonal and permanent road closures.

The *Lakeview RMP* designated about 246 miles of roads for permanent closure, mostly within special management areas, and an additional 288 miles of seasonal road closures in deer winter range. The permanent closures are being implemented gradually as staff and funding allow. About 40 miles of road closure signage was implemented in FY 2004. Open road number signs were also installed. The seasonal closures will be implemented and enforced in cooperation with the Oregon Department of Fish and Wildlife.

About 150-200 miles of roads are maintained annually (out of about 2,500 miles of existing BLM roads identified in the transportation plan). For further information contact Jim Platt at 541-947-6118.

Hazardous Materials

This program focuses on protecting public health and safety and the environment. A major part of the program involves the site investigation and cleanup of public lands contaminated with hazardous materials in conformance with federal and state laws.

* The BLM continues to coordinate with the Oregon DEQ on monitoring of the Alkali Lake chemical waste disposal area, located on State lands immediately adjacent to BLM lands near Alkali Lake. The Oregon DEQ is working on a risk assessment and remedial investigation report. The BLM continues to monitor and maintain exclosure fencing and warning signs in the area for public safety purposes.

In addition, the area surrounding the disposal site was used as a military training ground (aerial target training) during World War II and contains an unknown quantity of unexploded ordinance. The BLM continues to monitor this area for hazards that surface over time.

* The BLM continues to pick up illegal household and drug lab waste dumps that appear on public lands. In FY 2002-2003, 2 such sites were discovered and remediated. In FY 2004, 9 sites were discovered and 4 sites were remediated.

For further information contact Ken Tillman at 541-947-6112.

Law Enforcement

During FY 2002-2004, 1-2 full-time law enforcement officers have been devoted to patrolling the Lakeview Resource Area. Following the terrorist attacks on September 11, 2001, one law enforcement officer was detailed to the sky marshal program for about six months during the early part of FY 2002.

The major emphasis of law enforcement activities continues to be coordination of efforts with local law enforcement agencies, prevention of cultural resource theft/destruction, protection of special forest products, and prevention of theft or destruction of public property.

The Lakeview Resource Area continues to use annual law enforcement agreements with Lake County to provide additional law enforcement support during the summer months in northern Lake County, an area with a relatively high level of recreational use and associated public safety issues.

The adoption of the *Lakeview RMP* included the designation of a large number of new special management areas, seasonal and permanent road closures, and new areas with off-road vehicle restrictions. Law enforcement support will be needed to effectively implement these aspects of the plan in the future.

Education and Outreach

BLM staff have promoted a variety of public outreach/education programs each year which have included such things as:

* "Celebrate Wild Flowers" and other botany field trips (Elderhostel, etc.).

* Co-sponsoring an annual Resources and People (RAP) environmental education camp for high school students.

* Annual county fair exhibits, including a wild horse booth and raffle.

* Professional conference presentations and high school/ grade school presentations.

* Annual grade school vandalism poster contest.

* Co-sponsoring an annual fishing derby at Cottonwood Lake for area 4th grader students.

Research

Though research is not a primary mission of the BLM, the BLM does use research to address specific management issues and does authorize research activities by others on public lands. The following represents a list of research projects promoted by BLM or proposed by universities or individuals which have been authorized on the Lakeview Resource Area in the recent past. The BLM will continue to promote research opportunities, where feasible, particularly within Research Natural Areas. For more information on on-going research activities, contact Paul Whitman at (541) 947-6110.

* Authorized the "Life at the edge of hydration" study by Indiana University. This involved the collection of lake bottom sediment and water samples from the Warner Lakes in FY 2002.

* In cooperation with the U.S. Fish and Wildlife Service (USFWS) and ODFW, the BLM coordinated the collection of speckled dace for a genetic analysis in FY 2004.

* A teleseismic study was authorized in FY 2003 and conducted by the University of Wisconsin.

* A cave geomorphology study at Five-Mile Butte was authorized in FY 2003.

* The South Dakota School of Mines conducted field schools in in FY 2002 to 2004 which involved surface fossil collection and research in the Fossil Lake/Sand Dunes ACEC.

* BLM funded a Challenge Cost-Share research study with Oregon State University on the Greater Sage-Grouse using telemetry to map winter habitat in the Beaty Butte allotment in FY 2004.

* Continued a Greater Sage-Grouse winter habitat use study initiated in FY 2001 with the ODFW and USFWS in other portions of the Lakeview Resource Area in FY 2002 and 2003.

* Completed the planning for a sage-grouse lek maintenance study in FY 2004. Ten lek sites in various locations will be mowed to reduce vegetation to 3-4 inches in height to improve visibility for strutting. Data collection will start in FY 2005. The study sites will be monitored for 3-5 years to determine effectiveness.

* BLM staff assisted with a woodrat midden analysis in the Beaty Butte area.

* Continued to fund on-going juniper woodland habitat ecology studies by Dr. Rick Miller and graduate students from Oregon State University during FY 2002-2004.

* Established four experimental 40-acre study plots within the Paisley Desert area (which has been recommended for future restoration work in the *Lakeview RMP*) and begin conducting experimental restoration treatments. Results would be used to determine best methods of conducting restoration efforts in the area in the future.

* Following a wild horse gather within the Beaty Butte HMA in FY 2001, 20 horses (13 mares and 7 studs) were freeze-branded (for identification purposes) and released back into the HMA in January 2002. The mares were inoculated with a revised immuno-contraceptive vaccine called PZP in an attempt to slow down future reproductive rates. This contraceptive was expected to remain effective for 1-2 years. An attempt was made to monitor the effectiveness of the vaccine and the effects of this vaccine on population levels. During the census of 2002, none of the branded mares were observed with foals. However, not all of the branded mares were located during the census. During the gather of 2004, some of the branded mares were captured with foals. This seems to indicate the contraceptive is effective for at least a year, as expected. Due to the small number of mares inoculated relative to the herd size, the overall impact on horse population numbers within the HMA appears to be negligible. However, the vaccine may be used in the future to continue the research into improving the vaccine.

In FY 2003, a pygmy rabbit research project was initiated with the USFWS (Sheldon National Wildlife Refuge) examining the impacts of prescribed burning on rabbit survival. The research project continued in FY 2004 and is expected to be completed in FY 2005.

Chapter 2 - Current Project Register and Compliance with the National Environmental Policy Act

Additional projects will be developed and implemented on the ground as *Lakeview RMP* is implemented over time. All project proposals require compliance with the *National Environmental Policy Act* (NEPA) prior to completion. However, not all projects require the same level of NEPA compliance.

There are a number of project types that are categorically excluded from further NEPA analysis because they have been determined on an individual and national cumulative scale to have insignificant effects on the human environment. These are documented in the project file by means of a Categorical Exclusion review. Another class of actions do not require preparation of additional NEPA documentation because they involve implementation of an existing plan/NEPA decision. These types of actions are documented in the project file via a Documentation of NEPA Adequacy form. Neither of these types of actions requires further public involvement.

A third class of action requires further environmental analysis prior to project completion via preparation of an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI). The primary purpose of an EA/FONSI is to determine if an Environmental Impact Statement (EIS) must be prepared. Those proposals that are of sufficient magnitude or public controversy to require the preparation of an EIS are those that are deemed likely to have a significant effect on the human environment. Both of these types of environmental analyses provide opportunities for public involvement.

The availability of EA/FONSI's and EIS's are made known through the publication of legal notices and, in some cases, news releases in local news papers. The Lakeview Resource Area routinely publishes these notices in the *Lake County Examiner* (Lakeview, OR) and occasionally uses the *Herald and News* (Klamath Falls, OR), *The Bulletin* (Bend, OR), and the *Burns Times/Herald* (Burns, OR), depending on the location of the proposed project.

The Lakeview Resource Area staff have recently analyzed or initiated several proposed projects. The locations of these on-going projects are shown on Figure 2. To receive more information on a particular project, contact the individual listed as the project's "contact person" in Table 4 or contact Paul Whitman (phone: (541) 947-6110 or email: pwhitman@or.blm.gov).

Table 4. Schedule of proposed projects

BUREAU OF LAND MANAGEMENT * LAKEVIEW RESOURCE AREA * LAKEVIEW DISTRICT 1301 SOUTH G STREET * LAKEVIEW, OR 97630					
MAP NO.	**TITLE AND PROJECT DESCRIPTION**	**LOCATION**	**STATUS OF ANALYSIS**	**DECISION DATE**	**CONTACT PERSON/ PHONE #**
1	Temporary transfer of grazing use.	Warner Lakes allotment (#0523).	CX under development.		Lance Okeson/541-947-6146
2	Sagebrush fuel breaks: sagegrouse habitat protection (E#OR-010-2004-11).	Lakeview Resource Areawide.	EA under development.		Darcie Lewis/541-947-6137
3	Spring exclosure expansion and water trough relocation	Cox Spring; Fish Creek Rim ACEC.	CX under development.		Vern Stofleth/541-947-6135
5	Deep Creek watershed vegetation treatments (EA#OR-010-2003-05).	Deep Creek watershed, southwest of Adel, OR	EA under development.		Vern Stofleth/541-947-6135
6	Goodrich Pasture fence adjustment (EA#OR-010-2004-02).	ZX-Christmas Lake allotment (#10103), north Lake County, OR.	EA under development.		Theresa Romasko/541-947-6143
7	Squaw Ridge WSA fuel treatment (EA#OR-010-2004-05).	Squaw Ridge WSA; northern Lake County, OR.	Complete.	November 11, 2004	Gretchen Burris/541-947-6113
8	Derrick Cave management plan (EA#OR-010-2004-06).	Devils Garden WSA/ACEC; northern Lake County, OR.	EA under development.		David Draheim/541-947-6185
9	Buckaroo Pass fence extension and water developments (EA#OR-010-2004-07).	Beaty Butte allotment (#0600), southeast Lake County, OR.	Decision under appeal.	July 28, 2004	Les Boothe/541-947-6141
10	East-West Gulch riparian fence, pipelines, and road realignment (EA#OR-010-2004-08).	Beaty Butte allotment (#0600), southeast Lake County, OR.	Public review complete.		Les Boothe/541-947-6141
11	Hazardous fuels reduction	Dead Indian-Duncan allotment (#0709), southeast of Silver Lake, OR	CX under development		Lance Okeson/541-947-6146

Chapter 3 - Lakeview Resource Management Plan Maintenance Actions – FY 2004

Introduction

Minor changes, refinements, or clarifications in the RMP/ROD, including incorporating new data, are called plan maintenance actions. Plan maintenance actions do not expand the scope of resource uses or restrictions or change the terms, conditions, or decisions of the approved Lakeview RMP. Maintenance actions are not considered plan amendments or revisions and do not require formal public involvement or interagency coordination, but must be documented as part of the planning record (see 43 CFR 1610.5-4). The following section is intended to serve as a public record of plan maintenance actions related to the new *Lakeview RMP*. These types of actions will continue to be reported in periodic *Planning Updates*, like this document. Contact Paul Whitman at 541-947-6110 for more information.

Changes, Clarifications, and Corrections

1) Lakeview Proposed RMP/Final EIS, *Table 2-9- Documented Bureau sensitive plant species in the Lakeview Resource Area*, page 2-17.

Insert the following list of additional sensitive plant species into Table 2-9 because of omissions at the time the Lakeview Proposed RMP/Final EIS was published. Note that this list is subject to additional change over time as species are added or removed from the list. This will be tracked by future plan maintenance actions.

2) *Table 5 – Forage allocation and allotment summary*, RMP/ROD pages 46-49.

A number of minor corrections have been made to this table. New or corrected text is underlined. Deleted text has simply been removed. Most of these changes were needed to make this table consistent with management direction contained in Appendix E for specific allotments. Allotment 00408 was deleted because it was sold prior to the RMP, but was never removed from the table. All references to "recommended forage allocation" in footnote 2 and in the wild horse AUM column were removed because adoption of the RMP/ROD officially changed the wild horse AUM allocation to the recommended number.

3) *Special Status Species – Management Direction* section, ROD/RMP page 52, first paragraph, first sentence.

Insert the clarifying text "breeding habitat". The corrected sentence reads, "Management of greater sage-grouse breeding habitat will be in accordance with current BLM management strategies…". The protective sage-grouse management strategies applied throughout the RMP (i.e. mineral development restrictions, ROW location restrictions, etc.) were generally applied to breeding habitat only. This addition clarifies the original intent of the text.

Table 2-19 – Documented Bureau sensitive plant species in the Lakeview Resource Area (addition)

Scientific Name/BLM Categories	Common Name	Populations on BLM-Administered Land	Status[1]
BLM Bureau Sensitive			
Botrychium crenulatum	Crenulate moonwort	1	1 ONHP
Iliamna bakeri	Baker's globemallow	2	1 ONHP
BLM Bureau Tracking			
Carex atherodes	Awned sedge	1	3 ONHP[2]

[1] Status indicates placement on ONHP lists (1998): List 1-threatened with extinction or presumed to be extinct; List 2- threatened with extirpation or presumed to be extirpated from Oregon; List 3- may be threatened or endangered in Oregon or throughout range, but more information is needed to determine status; List 4- not currently threatened or endangered but of conservation concern.
[2] Ash or volcanic physical habitat.

Table 5. Forage allocation and allotment summary corrections

Allotment #	Name	Management category[8]	Public land acres	Other acres	Animal unit months (AUMs)								Period of use[4]	Grazing system[5]	AMP date	Allotment evaluation date	Management objective[6]
					Mule deer/ antelope	Elk	Bighorn sheep	Other wildlife[1]	Wildlife total	Wild horse[2]	Livestock	SNU[3]					
00103	ZX-Christmas Lake	I	524,180	54,640	500	260	20	29	809	778	31,069	6,588	Sp,Su,Fa,Wi	DR	2001	2001	4
00418	Squaw Lake	M	43,269	520	80	0	0	16	96	35	834	0	Sp	RR			4
00419	St. Patricks	M	23,460	1,240	50	0	0	3	53	58	750	0	Sp,Su	Sp,Su			4
00420	Egli Rim	M	21,052	0	20	0	0	11	31	0	1056	171	Sp,Su	RR			4
00426	Five Mile Butte	I	41,815	1,216	105	0	100	15	220	0	1,021	0	Sp,Wi	Sp,Su		1992	4
00428	Sheeprock	I	144,025	4,460	100	0	220	17	337	929	4,000	0	Sp,Su	RR	2001	2001	4
00436	Diablo Peak	C	74,098	0	80	0	100	5	185	0	0	0	Sp	UNG			4
00600	Beaty Butte	I	506,985	68,510	400	0	240	44	684	3,000	26,121	14,466	Sp, Su, Fa, Wi	RR	1998[9]		1,2,3,4
00710	Murdock	I	4,468	1,668	60	60	0	12	132	0	403	0	Sp,Su	RR			3,4
00711	South Hayes Butte	I	1,490	0	10	60	0	7	77	0	88	50	Sp,Su,Fa	Sp,Su,Fa			3,4
00716	Silver Lake Lakebed	C	680	0	25	0	0	5	30	0	250	0	Wi	Wi			3,4
00907	Devils Garden	M	4,406	0	100	600	80	16	826	0	0	0					3,4
01073	South Butte Valley	M	3,710	0	2	0	0	2	4	0	900	0	Fa,Wi,Sp	Sp			4
Totals			3,028,020	285,674	16,014	3,131	2,285	1,399	22,829	4,440	164,132	25,807					

[1] Other wildlife = raptors, greater sage-grouse, small mammals/birds, etc.

[2] Adjustments from two allotments (# 0400 and 0426) outside the herd area which were incorrectly allocated forage for wild horses. Forage allocations are redistributed based on herd management area boundaries. Forage allocations are also increased to provide 12 months of forage for all horses at the top range of the appropriate management level (150 horses in the Paisley Herd Management Area, 250 horses in the Beaty Butte Herd Management Area).

[3] SNU = Suspended nonuse.

[4] Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter.

[5] Grazing systems: RR = Rest rotation; D = Deferred; DR = Deferred rotation; Sp = Spring; Su = Summer; Fa = Fall; Wi = Winter; FRF = Federal range fenced; Unk = unknown; UNG = Ungrazed.

[6] Management objectives: 1 = Improve and/or maintain riparian vegetation; 2 = Improve water quality and quantity; 3 = Maintain and/or improve wildlife habitat; 4 = Maintain and/or improve ecosite condition.

[7] FRF = Federal range fenced: where small portions of Federal land are within fenced private lands; hence, grazing systems vary and are generally unknown.

[8] M= maintain; I = improve; C= custodial.

[9] AMP was amended with respect to season of use in December 2000.

Further, it is important to note that the areas mapped as breeding habitat (Map W-1 of the Proposed RMP/Final EIS) at the time the RMP was developed were considered "draft" due to habitat mapping efforts that were on-going during and after the completion of the RMP/ROD. Biologists will be required to confirm the actual presence of breeding habitat on the ground as the plan is implemented over time. If breeding habitat boundaries change as a result of the on-going habitat studies or future staff field work, the corresponding areas where other management activities are restricted will need to be modified. Such changes will be tracked and reported in future *Planning Updates* and plan maintenance actions.

4) *Table 12 – Off-highway vehicle designations by area*, RMP/ROD page 76.

A couple of minor corrections are needed to this table to make it consistent with the text. The category "Proposed WSA additions (acquired lands)" listed under "Wilderness study areas" heading should be changed to "Acquired lands with wilderness characteristics", as the RMP/ROD did not recommend lands for addition to any WSA's. This change makes the table consistent with terminology used elsewhere in the text.

One area in the vicinity of Beaty Butte received a new vehicle designation as a result of the plan, but was inadvertently omitted from this table. This area is shown on Map R-7 (north of Spaulding WSA) and is described on page 87. The following text has been added to the table under the "Other areas" heading:

"Beaty Butte	E	59,206"

This correction, in turn, requires correction to the acreage value listed in the table for the "Remainder of LRA" category (last line of Table 12). This value is reduced by 59,206 acres to 1,697,593 acres.

5) *Special Management Areas – Areas of Critical Environmental Concern and Research Natural Areas* section, RMP/ROD pages 57-58.

About a page of text describing management direction common to all ACEC/RNAs that appeared in the Proposed RMP/Final EIS (pages 3-48 to 3-49) was inadvertently omitted from the RMP/ROD and needs to be carried forward as part of the plan decision. Therefore, the following text corrections should be made:

On page 57, *Management Direction Common to All ACEC/RNA's* - delete the paragraph titled *WSA management in areas of overlap with ACEC/RNA's*. Insert the following text in this location:

Special status and Bureau sensitive animals: Disturbance to nesting raptors would be avoided (January–August, depending on species), especially in Lost Forest, Lake Abert, Abert Rim, Black Hills, Connley Hills, Fish Creek, Hawksie-Walksie, and Table Rock.

On page 58, the second column should be deleted in its entirety. Insert the following text in this same place:

"WSA management in areas of overlap with ACEC/RNA's: Management prescriptions were developed independently of WSA considerations. All management actions for those portions of ACEC's within an instant study area (ISA) or WSA would be governed by the wilderness IMP (USDI-BLM 1995b) until such time as Congress makes a determination regarding wilderness designation for the area. Any WSA's, or portions thereof, designated an ACEC and later released from wilderness study would be managed according to the applicable management direction for that ACEC. In some ACEC's, the ACEC management direction may be more restrictive than the wilderness IMP, such as closing an area to livestock grazing or limiting vehicle use to designated roads and trails rather than existing roads and trails. Should WSA's be designated as wilderness in the future, they would be managed in accordance with the direction contained in the authorizing legislation. Based on recent road inventory, it has been discovered that a number of roads within WSA's which do not appear on wilderness inventory maps (USDI-BLM 1989a) must be closed under all alternatives to comply with the wilderness IMP (USDI-BLM 1995b). These are shown as "historically closed" on the SMA maps. Seven ACEC's overlap with WSA's and an ISA (Table 9).

Commercial or personal uses: Firewood, post, or pole cutting, for both commercial and domestic use, would not be allowed in any of the ACEC/RNA's. Domestic firewood cutting, and bough cutting with offsite removal is prohibited under the wilderness IMP (USDI-BLM 1995b). This generally does not preclude collection of small amounts of dead or downed, woody material for firewood for onsite camping use, unless specifically prohibited in the following section.

Plant or plant material (living or dead) collection for commercial purposes, including juniper berries or boughs, would not be allowed in any of the ACEC/RNA's. Personal or Tribal collection of plants or plant materials would be allowed in most ACEC/RNA's, unless specifically prohibited in the following section.

Nondestructive research: Nondestructive research would be encouraged in all of the ACEC's, and is not limited only to those areas that have RNA's. This could

include collection of small quantities of plants or plant materials. Any research would need to be authorized by the BLM in writing and where necessary, permitted. The resulting data and information would be used by the BLM to help guide management of these areas.

Recreation: Commercial recreational use or use requiring a special permit proposed within ACEC's would be evaluated on a case-by-case basis and would be permitted, modified, or prohibited, as needed to protect the ACEC/RNA values. Dispersed or primitive camping use would be allowed in most existing or proposed ACEC/RNA's unless specifically prohibited in the following section.

Rock and boulder climbing or rappelling will be prohibited in Table Rock, High Lakes, and Black Hills ACEC's. The use of bolts or other permanent safety devices for these activities will require a permit within the remainder of the ACEC/RNA's. The use of bolts or other permanent safety devices will be prohibited..."

6) *Recreation Resources – Wilderness Therapy Schools* section, RMP/ROD page 84, third paragraph, second to last sentence.

One legal description in this sentence was incorrect. The sentence should read, "Within the Prineville District campsites are located in ...; Sections 19, 29, and 33, T.23S., R.21E; and Sections 5, 8, and 23, T.24S., R.21E." .

7) *Off-Highway Vehicles – Management Direction*, RMP/ROD page 87.

A number of minor corrections are needed on this page to make the text consistent with Table 12 and Map R-7.

a) *Wilderness Study Areas and Areas of Critical Environmental Concern/Research Natural Areas* section, page 87, second column, second paragraph, first sentence: Rahilly-Gravelly ACEC is listed with other ACECs as being limited to designated roads and trails. This is incorrect. Delete the reference to Rahilly-Gravelly ACEC in this sentence and insert the following sentence at the end of the paragraph. "Off-highway designations for Rahilly-Gravelly ACEC will be limited to existing roads and trails (Table 12)".

b) *North Lake Special Recreation Management Area* section, page 87, second column, fourth paragraph, first sentence should read, "The OHV designation for most of the North Lake Special Recreation Management Area (encompassing approximately 550,392 out of 797,756 acres) will be limited to existing roads and trails....".

c) *Other Areas* section, page 87, second column, fifth paragraph, should read, "Off-highway vehicle designations for the Alkali Lake Sand Dunes (6,813 acres), Picture Rock Pass (491 acres), and one area near Beaty Butte...". Add the following sentence to the end of this paragraph: "Cougar Mountain (included in deer winter range area) and West Side Cemetery (81 acres) will be limited to designated roads and trails (Maps SMA-24 and -25)".

8) *Appendix E – Livestock Grazing*, RMP/ROD pages A-13, A-56, A-57, A-58, A-67, A-99, A-110, A-114, and A-115.

Minor forage allocation numbers require correction to be consistent with Table 5. The forage allocation corrections were needed for allotments 00103, 00418, 00419, 00420, 00428, 00600, to acknowledge that wild horse AUM changes proposed for various allotments in the Proposed RMP/Final EIS were, in fact, officially adopted by the RMP/ROD. Allotments 00420, 00710, 00714, and 00716 required update to reflect recent transfers of grazing preference between allotments that had been completed. The specific corrections are summarized in the following table in underlined text.

9) *Appendix N – Minerals*, RMP/ROD page A-173, first paragraph.

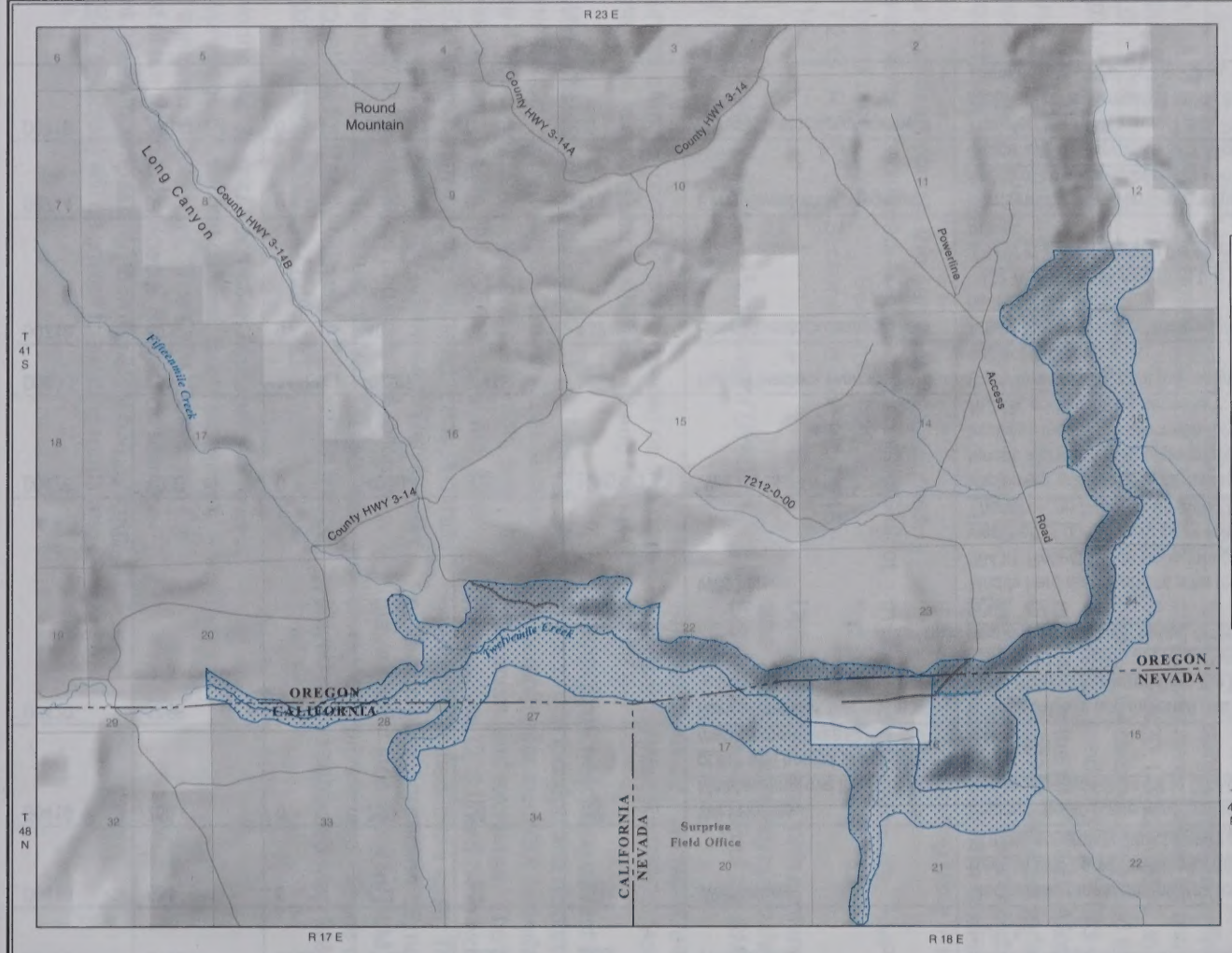
Delete the third and forth sentences as they reference other alternatives analyzed in the Proposed RMP/Final EIS which are not part of the RMP/ROD.

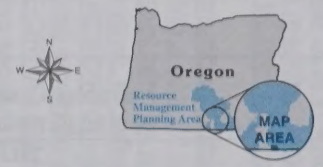
10) *Map SMA-22 - Twelve-Mile Creek Suitable Wild and Scenic River*, RMP/ROD Volume 2.

Changes are needed to correct section lines drawn in the wrong location and display a change in land ownership near the WSR boundary due to completion of a recent land exchange. The section line locations for sections 32, 33, and 34 in Northeastern California need to be shifted to the east. The ownership base for a 40-acre parcel in section 32, northeastern California, is shown incorrectly as BLM land and needs to be changed to private land. These corrections are displayed on the corrected Map SMA-22.

Appendix E – Summary of corrections

Allotment #	Grazing Information			Other Forage Demands		Identified Resource Conflicts/Concerns	Management Direction	RMP/ ROD Page #
	Active Preference	SNU	Total	Wild Horses	Total			
00103	31069	6588	37657	778	1587	Wild horses	Increase forage allocation for wild horses from 408 to 778 AUM's.	A-13
00418	834	0	834	35	131	Wild horses	Modify herd management area for 0420 and west half of 0418. Reduce wild horse forage allocation from 69 AUMs to 39 AUMs to more accurately depict forage available.	A-56
00419	750	0	750	58	108	Wild Horses: Maintain/improve the condition of the wild horses in the herd management area.	Implement wild horse herd management plan. Increase the forage allocation from 39 to 58 AUMs, and adjust as necessary.	A-57
00420	1056	171	1227	0	31	Range/livestock management Wild horses	Allocate AUM's and increase use on the seeding in 0420. - 302 AUMs transferred from the Murdock Allotment (0710), including 131 AUMs active preference and 171 AUMs suspeneded nonuse, based on finalizing carrying capacity in 2004. Modify herd management area for 00420 and west half of 00418. Reflects HMA boundary changes. Allotment 00420 and west half of 00418 have been removed from the HMA. Therefore, no forage is provided for horses.	A-58
00428	4000	0	4000	929	1266	Wild horses	Implement wild horse herd management area plan and improve fences along the east boundary to keep the horses in the area. Increase the forage allocation for wild horses from 490 to 929 AUM's, and adjust as necessary.	A-67
00600	26121	14466	40587	3000	3684	Range/livestock management	Carry forward allotment management plan/EIS objectives, subject to amendment.	A-99
00710	403	0	403	0	132	Range/livestock management	Adjust livestock levels, season of use, or grazing sytem, if necessary. - 302 AUMs transferred from this allotment to Egli Rim Allotment (0420) in 2004, reducing the total preference from 705 to 403 AUMs.	A-110
00714	0	0	0	0	179	Range/livestock management	Permanently retire/remove grazing from this allotment (250 AUMs of suspended nonuse) and reallocate a similar level of forage within Silver Lake Bed Allotment (0716).	A-114
00716	250	0	250	0	30	Range/livestock management	Transfer 250 AUM's from Table Rock Allotment (0714) to this allotment as a permanent rather than temporary allocation. Transfer was completed in 2004.	A-115





LEGEND

- Twelvemile Creek Wild and Scenic River Corridor
- Existing Road outside WSR Corridor
- Wild and Scenic River
- Stream

Road Designations within WSR Corridor

- Closed
- Open

Administered Lands

- Bureau of Land Management
- Private or Local Government

Note: *Road data sources may include one or more of the following: USGS DLG and DOQ data, GPS data, and field mapping. Additional, non-inventoried roads or trails may be present on the ground. Any new roads or trails discovered in the future would be considered open unless determined in a subsequent analysis that they are not needed or are causing resource damage.*

Note: *Lands falling outside of Oregon are not under the management jurisdiction of the Oregon/Washington State Director. Special management area designation recommendations for these lands will be forwarded to the California State Director for consideration during future land use planning efforts in this area.*

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Lakeview District
Lakeview Resource Area
Resource Management Plan
Fall 2004

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notification.

Map SMA-22: Twelvemile Creek Suitable Wild and Scenic River (Correction)

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Chapter 4 - Monitoring Summary

Introduction

The following section contains a summary of resource monitoring direction contained within the *Lakeview Resource Management Plan/Record of Decision (RMP/ROD), High Desert Management Framework Plan Amendment and Record of Decision for the Lake Abert Area of Critical Environmental Concern in Lake County, Oregon, Warner Wetlands Area of Environmental Concern Management Plan,* and *the Record of Decision for the Beaty Butte Allotment Management Plan and Final Environmental Impact Statement.* A brief discussion of monitoring that has been completed (primarily in FY 2004) is included in bold, italic text. Those interested in more information on a specific monitoring effort should contact Paul Whitman at 541-947-6110.

Plant Communities — Shrub Steppe Monitoring

Management Goal 1. Vegetation communities would be monitored to determine progress toward attaining desired range of conditions. Monitoring to determine success in meeting vegetation management objectives would include periodic measurements of plant composition, vigor, and productivity, as well as measurement of the amount and distribution of plant cover and litter which protects the soil surface from raindrop impact, detains overland flow, protects the surface from wind erosion, and retards soils moisture loss through evaporation. Additional data to determine the effectiveness of established tools in meeting objectives may include herbaceous or woody utilization, actual use, and climatic conditions.

In cooperation with the State of Oregon, colleges and universities, USFWS, USFS, ONHP, and private individuals, inventory the distribution and density of special status plants and unique plant communities. The next step would be to determine and prioritize degraded landscapes for restoration from an ecosystem perspective. Workshops and training for awareness and ability to identify these communities and species would be encouraged. Baseline inventories are being initiated which would be repeated as necessary in subsequent years to observe changes and dynamics of ecosystems.

Monitoring of recent prescribed/wild fire areas (Long Canyon, Beaty Butte, and Juniper Mountain) was conducted by an ID Team in FY 2004 to examine vegetation response and determine suitability for return of livestock grazing use.

Management Goal 2. Monitoring studies would be initiated to evaluate the cost and effectiveness of growing native, hand-collected seed in the resource area. Since viability of native versus commercially grown seeds is usually much lower, other avenues could be explored to develop local seed banks.

Efforts are underway to develop native grass and forb seed sources for use in future wildfire and other site rehabilitation work. Seed has been collected, cleaned, and is in the process of being "grown out".

Monitoring of existing condition of vegetation would consist of identifying ecological sites, determining ecological status, determining soil types, vegetation mapping, baseline inventory, and assembling existing basic information. Procedures used would be primarily those in *BLM Technical Reference 1734-7* and *Technical Reference 4400-5.*

Determination of trends in production, structure, composition of vegetation and determination of soil/site stability, watershed function, and integrity of biotic community would be done through the rangeland health assessment process prescribed in the most current version of *Interpreting Indicators of Rangeland Health*, *Rangeland Health Standards and Guidelines*, and *BLM Manual 4180* and *Handbook H-4180-1* guiding implementation of the rangeland health standards.

The status of rangeland health assessments is reported in Table 1 of Chapter 1 earlier in this document.

Plans would be developed in conjunction with Tribal peoples for collection and protection of cultural plants and communities to determine sustainability. Refer to Cultural Resource monitoring section for more information.

Plant Communities — Riparian and Wetland Monitoring

Most of the current information on riparian/wetland areas in the planning area has been based on assessments of riparian condition and trend. Although the BLM standard is to use proper functioning condition assessments, trend assessments can quickly provide initial information about progress toward desired conditions. Trend assessments include the following: wildlife and aquatic monitoring, water quality monitoring, Rosgen channel typing, riparian site classification and assessment of change over time towards meeting desired range of conditions, low-level aerial photography, and remote-sensing technologies.

Proper Functioning Condition and Riparian Management Objectives. Attainment of proper functioning condition objectives is considered a minimum step in the process of achieving desired range of conditions. Proper functioning condition and other riparian objectives (see Appendix F2 of the *Lakeview RMP/ROD*) in most cases do not equate to the desired range of conditions. Determination of proper functioning condition and riparian management objectives is an interdisciplinary process.

To determine improvement in conditions relating to lotic proper functioning condition, monitoring methods are described for all assessment categories in *USDI-BLM Technical Reference 1737-15.* Table 3 of the *Lakeview RMP/ROD* shows objectives and possible monitoring methods to determine progress toward meeting the objectives; this table does not repeat the monitoring described in the proper functioning condition technical reference listed above. Since the ultimate goal is to meet site potential or other riparian management objectives, above minimum proper functioning condition requirements, proper functioning condition inventories will not likely be repeated in the future.

Juniper treatment areas along Twelvemile Creek were monitored in FY 2004 to determine the response of both native riparain plants and noxious weeds.

Riparian Scorecards. Scorecards for the LRA have been developed based on the riparian ecological site inventory methodology and is in field use. They will identify vegeta-

tive conditions that could be present under high condition for a given site considering soil, climate, and water conditions. These cards will be the basis of setting objectives of riparian vegetation condition for any given reach of stream. Monitoring will be based on current vegetation conditions based on potential and measured by change over time towards meeting the goal. Riparian vegetation condition is important for water quality attainment and fish habitat protection. Establishing greenline transects that measure vegetation type and condition will be a basis for tracking changes in vegetation condition over time.

Photo Points and Aerial Photos. Photo points have been an integral part of stream/riparian condition monitoring in the LRA for many years. Photo sets taken at specific repeatable locations (on some sites since 1978) subjectively show changes in stream channels and vegetation over time. These study points have proven very useful to illustrate changes at specific points over time. Aerial photos show changes in channel and vegetation over the length of a stream. They include enough detail to monitor woody species changes over time.

Refer also to the Water Resources/Watershed Health and Fish and Aquatic Habitat Monitoring sections.

Plant Communities — Forest and Woodland Monitoring

Management Goal 1. The acres of commercial (pine and mixed conifer) forest treatments are not predictable. Acres treated (usually by thinning or prescribed burning) would be tracked annually, but not to attain a plan-stated acreage goal. For areas that are treated, periodic ocular estimates will be made to assure compliance with the Forest Management and Prescribed Burning BMP's listed in Appendix D of the *Lakeview RMP/ROD*.

An operations inventory will be done on a periodic basis to monitor stand composition and structure. Stocking surveys will be done before and after thinnings and other treatments. In monitoring stand treatments, a stand exam, based on a series of sample plots, will be made by resource specialists to determine initial stand structure by species, size, and density. This information will then be used to develop a cutting prescription to achieve an improved stand condition of appropriate species, size classes, and a reduced density to fit site conditions. A post-treatment stand exam will be made to evaluate the effectiveness of the thinning treatment in meeting the prescription's goals.

Management Goal 2. The total acres of juniper treatments will be tracked annually and compared to limitations stated in the plan. Periodic ocular estimates will be made by resource specialists to assure compliance with the applicable BMP's.

Evaluation of juniper woodlands and aspen treatments are less complex than forest treatments in pine or mixed conifer stands. Ocular estimates will be made to evaluate the intended release of aspen in mixed juniper-aspen stands, the maintenance of old growth juniper on historic juniper sites, and the reduction of invasive juniper elsewhere. Since juniper treatments are usually made for the benefit of resource values other than woodlands, additional monitoring may be done to evaluate vegetative and edaphic responses to juniper removal for the benefit of wildlife habitat, forage, and watershed values.

Monitoring inspections of each open firewood cutting area are conducted at least annually to determine the amount of firewood material available on-site, insure that firewood is being removed from designated areas only, and determine when a given 40-acre block needs to be closed to cutting and a new 40-acre block opened up.

Special Status Plant Monitoring

Management Goal 1. Monitoring will include surveys to determine the distribution, resource conditions, and trends of special status plant species and representative habitats. This will include determining plant composition at the site, checking for invasion of exotic species, monitoring localized disturbances (from OHV use, recreational use, etc.), and determining trends in special status plant attributes. Monitoring methods will include establishing photo points and doing periodic ocular surveillance. Any new ground-disturbing activities or NEPA actions will require a survey clearance for presence or absence of special status plants.

Trends in special status plants and vegetation will be determined and could include such things as demographic studies, density, cover, frequency (in exclosures versus open areas). Methods to accomplish this could include establishing new exclosures to determine effects of use versus nonuse, developing conservation agreements/conservation strategies, and conducting vegetative attribute sampling in accordance with *Measuring and Monitoring Plant Populations*.

Within the Long Canyon prescribed burn area and Toolbox/Winter wildfire areas, populations of Iliamna bakeri were estimated using Oregon Heritage Program Protocol. Site locations were collected with GPS.

Management Goal 2. ACEC/RNA's will be monitored on a regular basis to determine if guidelines are being met, and to assess the current condition of the area's relevant and important plant communities and populations. RNA's designation also increases the possibility of future scientific research being carried out on individual plant species. Allotments will be evaluated on a periodic basis and ACEC/RNA monitoring would be incorporated into that process.

In FY 2004, a number of sites known to contain BLM sensitive, assessment, or tracking species species were monitored, covering a total of 18 different species. Some of these sites were within ACEC/RNAs; 2 were within the Beaty Butte allotment.

Noxious Weed Monitoring

Evaluation of treatments will continue in cooperation with the State of Oregon, Lake County, and private interests as well as, neighboring counties and Federal jurisdictions. Inventories to identify new introductions, distribution, and density of noxious weed populations will be carried out on an annual basis in cooperation with these entities.

Known noxious weed sites which are identified for treatment will be visited each year and evaluated for effectiveness of control. Known sites not identified for treatment will be visited on a rotational basis over 3 years. All known sites visited will be located with a global positioning system unit, photographed, measured, and a determination of the need for future treatment will be made.

About 160 acres of areas treated for weeds in the past were monitored in FY 2002. About 500 acres of past treatment were monitored in FY 2003. About 200 acres of past treatment were monitored in FY 2004.

Inventories for new noxious weeds will be conducted each year on a 3-year rotation through the resource area. All burned areas (natural and prescribed) will be surveyed for noxious weeds for 3 years following the burn. Any newly discovered sites will be located with a global positioning system unit, photographed, measured, and a determination of the need for future treatment will be made.

New inventories are discussed in the previous Noxious Weed section of Chapter 1 earlier in this document.

Ecological trends due to changes in vegetation composition over time, in areas dominated by competing undesirable plant species, will be measured through periodic rangeland health assessments following procedures outlined in *Interpreting Indicators of Rangeland Health*.

Soil and Microbiotic Crust Monitoring

Soil health and condition will be monitored by conducting reviews of ground-disturbing projects for implementation and effectiveness of BMP's and assessing undisturbed sites for various parameters including erosion potential and groundcover. Monitoring the effects of other resource management actions such as livestock grazing and watershed projects will consider soil condition and health. Baseline soil condition data is provided through the ecological site inventories ***(see Soil and Microbiotic Crust section of Chapter 1 earlier in this document)***.

Infiltration monitoring associated with range restoration projects were conducted on 1 plot in FY 2003 and 2 plots in FY 2004.

Some baseline data has been collected by the ESI crew in northern Lake County involving measurement of percent cover of biotic crusts. ***This information is stored in the ESI range database.***

Additional research in the Northern Great Basin is needed to determine ecological roles, response to natural and human actions, and management/monitoring techniques for biological soil crusts. Research into the role and functioning of microbiotic crusts in the Northern Great Basin will be encouraged. This research should focus on determining the validity of using soil crusts as an indicator of environmental impact and system integrity. After determining the potential for biological crust development, future project impacts could be evaluated. A biological crust matrix could be created to assist in evaluating potential management actions to negatively impact biological crusts, such as OHV use and livestock grazing.

Recent research by Ponzetti et al. (2001) consisted of a two-level field study, including permanent plots and nonpermanent, stratified landscape sampling of biotic crust communities was initiated on parts of the Horse Heaven Hills near Richland, Washington. This research addresses understanding the influence of grazing on the integrity of biotic soil crusts in semiarid rangelands. This research model could be implemented in the LRA to help with future management actions by evaluating the permanent plots, calculating the descriptors of the biotic crust community, and then comparing the results to areas where grazing, fire, OHV, and other uses occur.

Water Resources/Watershed Health Monitoring

Water Quality. Water quality monitoring would be conducted for various parameters comparing water quality standards to current condition. Specific examples include, but are not limited to:

Thermographs: These devices record a temperature at various intervals through the day. When placed in a stream, they record water temperature throughout the day for months at a time. Maximum daily temperatures can be determined by this method. Stream temperature, measured as a 7 day average of daily maximums, is a water quality criteria that the BLM is mandated by the EPA to manage. Cooler stream temperatures are also a critical component of fish habitat, especially for redband trout and Warner suckers. Stream channel and vegetation condition, among other factors, effect water temperature and will be managed by methods described elsewhere.

Substrate core sampling: In areas where sediment loading is a concern, a streambed sediment core may be used to determine the amount of fine sediment that has collected in a representative site. If a profile of these cores is taken up and down a stream system, especially just below tributaries, it can be used to identify the origin of major sediment input sources.

Water temperature monitoring was completed at 15 sites in FY 2002 and 19 sites in FY 2003.

Best Management Practices (BMPs). BMP's designed to minimize impacts to watershed conditions will be specified for each project. Examples of BMP's that may be used are listed in Appendix D of the *Lakeview RMP/ROD*. Each year, several projects will be evaluated by resource staff to determine if the BMP's were followed and if they served their intended function. This would be part of the RMP implementation monitoring process. Various methods could be used to track the effects of BMP implementation. For example, if sediment traps were planned to capture silt produced from a wildfire, the trap placement could be confirmed and channel cross sections or sediment cores placed before and after runoff events to determine amount of silt collected on-site or prevented from entering a stream system.

Not many projects have been proposed and/or implemented since the Lakeview RMP/ROD was approved in November 2003. Thus, there are not many BMPs in place that could potentially be monitored at this point in time. This will change in future years as more projects and associated BMPs are implemented.

Riparian Scorecards. Riparian scorecards would be used to measure riparian vegetation condition. Riparian vegetation condition is important for water quality attainment and fish habitat protection. These scorecards will be used in development of total maximum daily loads and used to measure progress toward meeting the terms of the total maximum daily loads.

Riparian Ecological Trend. ***Conducted long-term trend monitoring at 24 sites in FY 2004 within areas that had***

baseline riparian ecological site inventory mapping completed.

Fish and Aquatic Habitat Monitoring

Rosgen Level 3 Steam Channel Classification. There are several factors measured in Rosgen channel classification, including stream channel cross sections and longitudinal profiles, channel material characteristics, meander width ratio, flood prone area, stream sinuosity, and pool and riffle dimensions. Stream reaches, as described by entrenchment, width/depth ratio, sinuosity, gradient and, substrate size are characterized by dimension, pattern, and profile and then compared to what should be there given site conditions. A full level 3 survey will be reserved for project level monitoring or channel condition determination.

Individual aspects of the classification may be used for monitoring specific deficiencies of channel condition. These deficiencies may have been identified in proper functioning condition assessments or stream surveys. For example, width/depth ratio and access to flood plains may have been identified as a reason for impaired function of a stream in proper functioning condition determination. Stream channel cross sections would confirm this assessment and could be used to monitor progress towards improving this condition.

Approximately 10 miles of Rosgen channel classification was completed in both FY 2002 and 2003.

Macro-Invertebrate Sampling. The assemblages of large insects in a stream indicate many water quality conditions. For example, the presence and relative abundance of certain species may indicate excessive temperature or sediment load. Because insects exist over a period of time, they tend to represent conditions over a season rather than a short period of time.

ARIMS Stream Habitat Survey. This method of stream survey is specifically used to identify limiting fish habitat conditions, and in combination with fish counts by habitat units, for tracking change in fish populations over time. This survey tracks pool quality and quantity, spawning substrate, bank conditions and cover, pool/riffle ratios, quality and quantity of large wood, channel form and suitable spawning substrates. This survey should be completed every 5 years to determine trends in fish habitat conditions. Data from these surveys would be added to the statewide ARIMS or subsequent database. Habitat deficiencies could result in specific project development to correct limiting conditions.

About 50 miles of stream habitat surveys were completed in both FY 2002 and 2003.

Riparian Scorecards. ***Refer to the Wetland and Riparian and Water/Watershed Health Monitoring sections of this chapter.***

Photo Points and Aerial Photos. Photo points have been an integral part of stream/riparian condition monitoring in the LRA for many years. Photo sets taken at specific repeatable locations (on some sites since 1978) subjectively show changes in stream channels and riparian vegetation over time. These study points have proven very useful to illustrate changes at specific points over time. Aerial photos show changes in channel and vegetation over the length of a stream. They include enough detail to monitor woody species changes (affecting stream shading) over time.

Completed about 100 acres of photoplot monitoring in FY 2002 and about 15 miles of stream photos in FY 2004.

Wildlife and Wildlife Habitat Monitoring

Management Goal 1. Every 5 years the number of acres of bighorn sheep habitat that has undergone vegetation treatments will be evaluated to determine what percentage of the proposed treatment has been completed. This includes areas proposed for juniper reduction within bighorn sheep habitat.

Every 5 years bighorn sheep population levels and distribution within the resource area will be evaluated using annual observations and herd counts conducted by ODFW. Data will be used to help determine areas where habitat is limited and where special management may be needed.

Where vegetation treatments are applied, annually or biannually monitor results with photo points and vegetation sampling that includes species and structural composition both before and after treatment, if possible. Baseline sheep use patterns and estimated population levels will be calculated using information collected annually from ODFW. These would be compared with post-treatment use patterns and population numbers to determine relative effectiveness of the treatment.

Forage production and wildlife allocations will be monitored on an allotment basis during allotment evaluations or rangeland health assessments. Annual livestock and wild horse utilization records gathered by BLM staff and wildlife use records reported by ODFW and BLM observations will be used to determine possible conflicts. Differences in use patterns and timing of use between these species will be evaluated and taken into account. Conflicts in forage allocations between livestock, wild horses, and wildlife will be resolved and new allocations set during the assessments and/or subsequent grazing permit renewals. Impacts to wildlife populations will take into account changes in herd management objectives as set by the ODFW.

Management Goal 2. Annually or semiannually assess landscape changes in big sagebrush habitats from wildfire, prescribed fire, vegetation treatments, insect infestations, or other major influences. These changes will be mapped using global positioning system, geographic information system, and remote sensing technologies. The number of acres will be reported for each type of action. Assessments will be based on changes in size and composition of big sagebrush habitats. Changes will reflect suitability for sagebrush dependant species.

Big sagebrush and other wildlife habitats will be evaluated periodically during rangeland health assessments and after major catastrophic events such as large-scale wildfires. Where necessary, recommendations will be made for protection or restoration of damaged or degraded sagebrush habitats. Annually or biannually monitor areas where habitat treatments occur. Use photo points and vegetation sampling techniques that include species and structural composition of the area before and after treatment, if possible.

Special Status Animal Species Monitoring

In conjunction with other private, state or Federal agencies, continue to monitor known populations of special status species considered to be sagebrush obligates (such as greater sage-grouse, pygmy rabbit, and kit fox). This monitoring will be accomplished by contract or with the aid of private, state, or Federal employees. Monitoring could consist of intensive research projects or passive population inventories designed to help identify the extent of the populations and what habitats are being used. Inventories will be completed at least once every 10–15 years for each special status species known to occur within the planning area. Information will be used to identify habitats important for the survival of these species.

Speckled dace, greater sage-grouse, and pygmy rabbit studies have been conducted in recent years. Refer to the Research section of Chapter 1 earlier in this document.

Aerial monitoring flights were conducted on about 40 miles of streams in FY 2002, 2003, and 2004 to ensure that livestock grazing was in compliance with the requirements of the Warner sucker biological opinion.

Livestock Grazing Monitoring

Monitoring will include recording actual use, measurements of utilization, continuation of collection of ecological site inventory data and conducting allotment evaluations or rangeland health assessments. Conditions and trends of resources affected by livestock grazing will be monitored to support periodic analysis/evaluation and site-specific adjustments of livestock management actions. Monitoring will determine when grazing would be authorized in burned areas or prescribed burn treatments based on attainment of resource objectives.

Actual Use. Actual use will be recorded by the permittees and submitted to the BLM in the form of an actual use report. This report, submitted within 15 days after completing the authorized grazing use, is a record of forage consumed by livestock in terms of AUM's (animal unit months) based on number of livestock and length of grazing use. The report includes livestock numbers, pasture use, turnout dates and gather dates. Actual use reports are submitted for all allotments at the end of the grazing season.

Utilization. Utilization data will be collected to determine the percent of forage consumed in an allotment during a particular grazing period. This data, in conjunction with crop year index data will be used to calculate the adjusted utilization. Annually, the utilization data gathered in the field and the adjusted utilization allows managers to determine if proper use levels are being met or exceeded, and if distribution of livestock is adequate or in need of improvement and what is necessary to facilitate improvement. Over the long-term, adjusted utilization will be used to calculate the proper stocking level of an allotment.

The primary method used in the LRA is the key forage plant method identified in the *BLM Manual Handbook H-4400-1*. The key forage plant method is an ocular estimate of utilization within one of the six utilization classes (none, slight, light, moderate, heavy, severe) on one or more key herbaceous and/or browse species. Utilization is generally expressed as a percentage of available forage weight or numbers of plants, twigs, etc., that have been consumed or destroyed, and is expressed in terms of the current year's forage production removed.

Trend. Trend refers to the direction of change and indicates whether rangeland vegetation is being maintained or is moving toward or away from the desired plant community or other specific vegetation management objectives. Trends may be judged by noting changes in composition, density, cover, production, vigor, age class, and frequency of the vegetation and related parameters of other resources. The trend methods may include step-point nearest plant method, nested frequency, line intercept method, photo plots, and Parker three-step method.

Climate. Climate will be monitored at various weather stations in the area. Data collected includes precipitation, temperature, and wind speed. From this data, the crop yield index will be calculated. Crop year index is used to calculate the adjusted utilization. Crop yield index will also be used in conjunction with the adjusted utilization to determine the potential stocking level of an area.

Monitoring Schedule. The Selective Management Policy categorized allotments into one of three management categories: (I) Improve, (M) Maintain, and (C) Custodial. The categorization was based on the following factors: (1) present resource condition, (2) potential productivity, (3) presence of resource conflicts or controversy, (4) present management situation, (5) opportunity for positive economic return, (6) appropriate local factors. This categorization is carried forward into this RMP. Monitoring requirements in the (I) category allotments are the most intensive and are designed to measure progress toward meeting specific objectives. The (I) category allotments have trend plots examined every 3 years and the utilization recorded every time a pasture is used. In the (M) category allotments, monitoring intensity is reduced. The primary emphasis is on monitoring changes from current resource conditions. The utilization level is determined every year. Trend plots are examined every 5 years. Monitoring in the (C) category allotments is limited to periodic inventories and observations to measure long-term resource condition changes. Trends plots are examined once every 10 years.

In FY 2003, 60 allotments were monitored. In FY 2004, 46 allotments were monitored, including Beaty Butte (see the following Beaty Butte AMP monitoring section).

Allotment Evaluations. Every allotment will undergo an evaluation using the *Healthy Rangelands Standards and Guidelines* and *BLM Manual 4180* and *Handbook H-4180-1* guiding implementation of the rangeland health standards on a periodic basis. Currently, this is expected to occur about once every 10 years, preferably just before or during the permit renewal process for a given allotment. Rangeland health assessments will be completed for all allotments by 2008. Monitoring data will be utilized to determine attainment of the five standards.

Beaty Butte Allotment Management Plan (AMP).
Riparian/Lentic Habitat. The riparian and lentic habitats will be evaluated using the Proper Functioning Condition methodology, and the Ochoco Bottom Line Survey Methodology for cut banks. (Cut banks are defined as active erosional surfaces, at least six inches high, that contribute fine sediment to the stream and have slopes greater than 45%. It is not considered a cut bank unless all of these criteria are met.

If the banks have greater than 50% vegetative cover, they are considered stable). The riparian zones will be evaluated approximately every 5 years to detect any change.

Since the AMP was completed, several major drainages (Guano Creek, Sagehen Creek, and East-West Gulch) have been evaluated in accordance with the PFC methodology. The results were summarized in Table 2-4 of the Lakeview Proposed RMP/Final EIS. See also riparian ecological trend section earlier in this chapter.

Wildlife and Wildlife Habitat. Wildlife populations will continue to be monitored by the Oregon Department of Fish and Wildlife (ODFW). The species monitored are mule deer, pronghorn antelope, and sage-grouse. Small mammal and California bighorn sheep surveys may also be conducted periodically by the ODFW. The BLM will continue to conduct periodic raptor surveys .

ODFW is the lead agency responsible for collection of wildlife population data. They should be contacted directly for data related to the Beaty Butte area.

The BLM cooperated with Oregon State University, ODFW, and USFWS on several studies related to sage-grouse winter habitat mapping and lek surveys over the last several years. The Beaty Butte allotment was a key area studied. Refer to the "Research" section of Chapter 1 earlier in this document.

Special Status Plants. Within the Beaty Butte allotment, two special status plants (grimy ivesia and Crosby's buckwheat) are monitored every year to determine if there are changes in the population status. If a known population declines by 10 percent or more in any given year, the BLM will determine the cause and consult appropriately on needed changes in management.

Both plants were monitored in FY 2004. Populations of both species are currently considered to be stable.

Cultural Plants. Transects will be established and measured during the growing season to determine the diversity and vigor of culturally used plants. Transects will be established in consultation with tribal groups. If practical, these transects will be associated with existing trend study sites.

Some consultation has occurred regarding cultural plants within the allotment.

Livestock Use/Utilization. Actual use by livestock will be collected at the end of each grazing season from the permittees. Number and kind of livestock, dates of use by pasture, and observations made by permittees will be included on the form. After-the-fact billing privileges are based on promptly returning accurate information to the BLM for use in evaluating grazing management.

Annual utilization measurements and mapping will continue for both cattle and wild horse use. The amount and timing of the horse utilization monitoring will be determined by where the cattle are grazing each year. In the rested areas, the horse use monitoring will be done once a year at the end of the growing season. In the areas being used by cattle, the horse monitoring will be done twice a year (spring and fall). The detailed methods and monitoring schedule can be found in the Wild Horse Utilization Monitoring Plan/Schedule, Beaty Butte Herd Management Area which is on file in the Lakeview Resource Area Office.

Annual cattle utilization monitoring will be done in grazed areas when cattle leave the area. Utilization will be determined using the Landscape Appearance Method and a utilization pattern map will be developed to illustrate the amount of cattle use across the pasture.

At the Shirk Ranch, residual cover heights will be measured as described in Sampling Vegetation Attributes immediately upon livestock removal. After 5 years of monitoring data has been collected, the grazing use will be compared to the desired residual cover levels in objective 10 and adjustments in grazing use at the Shirk Ranch will be made as necessary.

Livestock utlization monitoring/mapping has occurred annually. The data is stored in the allotment file.

Trend. Ecological trend data will continue to be collected at the 26 established study sites. All 26 sites have established photo points; 13 of the sites have established step-toe transects; and 5 of the sites have nested plot frequency transects established. The collection of range ecological trend data will continue using the 26 established photo points and reading the 13 step-toe transects and the 5 nested frequency transects using standard methods in Sampling Vegetation Attributes. The studies will be conducted every three to five years to collect data to evaluate the ecological trend in the allotment. Also, data will be collected in approximately 10 years to compare to the data collected during the Ecological Site Inventory to determine changes in the seral stage of the plant communities.

A new nested plot frequency transect will be established in the vernal lakebed site to determine the ecological trend in this plant community. A nested plot frequency transect was established in the upland range site in the Sink Lake ACEC/RNA to determine the ecological trend for that plant community. Additional study sites may be established to monitor trend and evaluate if goals and objectives are being met.

To evaluate objectives two through nine, the trend studies described above will be used to indicate changes in the vegetation community. As detectable changes in frequency of occurrence of key species occur, several Ecological Site Inventory vegetation transects will be done to determine actual change in the plant community compared to the original ESI data. In 1996, a nested plot frequency transect was established in the vernal lake area in the upland low sagebrush area to determine the ecological trend for that plant community. Additional study sites may be established when the water subsides in the vernal lake.

The ESI method will be used to determine the effectiveness of prescribed burns. ESI transects established in the original survey will be repeated about five years on those range sites within the prescribed burn areas that have existing transects. These transects will be done to determine if the composition of the vegetation has achieved the objectives. In the range sites within the prescribed burns that did not have actual ESI transects, transects will be run prior to the prescribed fire to establish a baseline. About five years after the burn, the transect will be run again to determine if the vegetation objectives are being met. Pre-and post fire management will include monitoring of plant communities and cultural plants.

In FY 2004, 19 ESI transects within 1998-99 prescribed fire areas and 30 ESI transects within the 2000 wildfire area were retaken.

Monitoring visits of recent prescribed/wild fire areas were also conducted by an ID Team in FY 2004 to examine overall vegetation response and determine suitability for return of livestock grazing within burned areas.

Climate. Precipitation and temperature data will be collected using the National Oceanic and Atmospheric Administration (NOAA) reports for the Hart Mountain reporting station and the Remote Automated Weather Station (RAWS) data collected at Fish Fin Rim. Precipitation data is available from the Acty Mountain rain gauge from the State Watermaster in Lakeview. This data will be used to determine growing conditions.

Allotment Evaluation. An allotment evaluation will be conducted ten years after the final decision by an interdisciplinary team and will include consultation with all interested parties. If adjustments in management are needed, these will be made in accordance with applicable regulations. The type of information that will be collected is: precipitation data, actual use by livestock, utilization of forage, changes in vegetative composition, vegetative cover, sensitive plant population changes, streambank stability, and Proper Functioning Condition of riparian and lentic areas. *(Since the ROD was signed in 1998, this evaluation is scheduled for 2008).*

Wild Horse Monitoring

Aerial and ground census information will continue to be gathered periodically to determine the number of adults and foals, colors, special characteristics, and overall health of the horse herds. Aerial counts will be done at a minimum of once every 3 years. Data, including the ratio of mares to studs and age class, will be collected during gathers and/or at the Burns Horse Adoption Center as horses are processed.

Recent wild horse census data for the Beaty Butte and Paisley Desert Herd Management Areas are reported in Table 3 of Chapter 1 earlier in this document.

Wild horse actual use of forage will be determined by multiplying inventoried or estimated numbers of horses by the length of grazing period on their summer and winter ranges. Utilization and trend study methods are the same as described previously in the Livestock Grazing Management monitoring section.

Data collected in other studies, such as monitoring of special status plants and animals, microbiotic crusts, wildlife, water resources, weeds, riparian, and wetland sources may be used to determine the effects of wild horse management actions on these resources.

Results and recommendations will be recorded in allotment monitoring reports, allotment evaluations, or rangeland health assessments, as described in the preceding Livestock Grazing section.

Special Management Area Monitoring — Areas of Critical Environmental Concern and Research Natural Areas

Collate existing base information and develop additional baseline inventories of plant communities following methods in *Research Natural Areas: Baseline Monitoring and Management.* Periodically monitor the impacts of management actions on resource values, including the health of RNA plant community cells. This will be done using such techniques as photo points, line intercept transects, ocular surveillance, study plots, and value points.

Lost Forest/Sand Dunes/Fossil Lake ACEC. In this area, periodically monitor the eastern dune edges for dune movement/changes over time. Develop baseline markers on trees on the edge of some sand dunes to determine if there is an increase in dune movement. Use existing and ongoing research by the Desert Research Institute (2001) as a baseline for measuring future dune movement. Monitoring methods would include using the global positioning system to establish the leading edge of the eastern dune field, marking trees on northwestern edge of the dune fields, and locating measuring plots.

Warner Wetlands ACEC. Provide baseline data on upland and riparian/wetland vegetation and sensitive plant species within the ACEC for future management decisions and scientific use. Specifically:

1. Determine what baseline vegetation data exists (Releves, ESI, etc.). Enter monitoring data in a centrally located database/GIS.
2. Map and determine PNC status of riparian and wetland ecological types
3. Monitor and update map locations of the known populations of the sensitive plant species *Sesuvium verrucosum* and *Heliotropium curassavicum var. obovatum*, determine habitat requirements for maintaining healthy, viable populations, and report any downward population trends. ***See Special Status Plant Monitorin" section.***
4. Inventory potential habitat types for additional sensitive plant species populations.
5. Establish long-term study plots in representative areas of the ACEC to evaluate changes in plant density, vigor, and community composition. Monitor vegetation responses after noxious weed treatments or other management actions to determine if restoration is needed, utilizing habitat-appropriate native grasses, shrubs, trees, forbs, sedges, and rushes. Establish five new permanent nested frequency/photo plots (one in each pasture) and maintain the three existing photo plots for upland trend monitoring in grazed areas and establish others as needed in ungrazed areas
6. Develop a monitoring plan for ground water levels, nutrients and other water quality parameters.

Lake Abert ACEC. Additional inventory or monitoring will be needed to determine if the goals and objectives of the *Lake Abert Plan Amendment* are being met.

Initially, monitoring will focus on implementation and effectiveness. Validation will only be required if the goals and objectives are not being met. Implementation monitoring will focus on documenting plan amendment implementation. ***This has been documented since 1995 in previous Planning Update documents.*** Those goals where implementation monitoring will occur include 5, 6, 7, and 10. In most cases,

implementation of specific management actions outlined in the plan amendment will cause these goals (and objectives) to be met. Effectiveness monitoring will occur for goals 1 and 8, primarily in direct response to land-disturbing development proposals such as sodium leasing. The project proponent will be required to conductmonitoring before, during, and after project development, using scientifically based monitoring protocols. The proponent will be required to report the results of such monitoring to the BLM for evaluation.

The types of inventory and monitoring which may be conducted within the ACEC include:

Vegetation/Range Conditions.
1) Additional baseline inventory of riparian/wetland vegetation may occur, provided funding is available. The work that has been done to date involved monitoring riparian/wetland vegetation at permanent frequency transects in 5 or 6 key locations around the lake. Photoplots could also be used for quantifying vegetation change. If more than 10% change in species diversity occurs (75% confidence level) over 3-year period, this will be viewed as not meeting the plan's stated goals and objectives (Goal 1, objective b and Goal 8, objective f) and management will be reevaluated.
2) Forage utilization, relative shrub, forb, and grass composition, and general rangeland conditions will continue to be monitored in grazed portions of the ACEC. Nested frequency studies will be established, as necessary, to monitor change in frequency. This will indicate when it will be appropriate to measure relative composition of shrub, forb, and grass components. Actual use studies will be conducted in accordance with *BLM Technical Reference TR 4400-2*. Utilization studies will be conducted as described in *BLM Technical Reference TR 4400-4*. ***See "Livestock Grazing Monitoring" section.***
3) Desert allocarya (*Plagiobothrys salsus*) reintroduced into an historic enclosure location will be considered an experimental population and will be monitored using the following methodology: a) for five years following reintroduction frequency plots and phenology counts (seedlings, flowering plants, plants bearing seed) would be conducted; b) beginning the sixth year after establishment the site will be monitored in accordance with an established schedule or Conservation Agreement. Frequency transects and photoplots will be established inside and outside the exclosure to assess the potential threats of wildlife or livestock grazing. After the first year, the area outside the exclosure will be searched for seedlings. Any seedlings found will be flagged and tracked in subsequent years.

Cultural.
1) Conduct a Class III archeological survey of the entire area, as time and funding permit. Archaeological clearances will be conducted, as needed, in response to proposed ground-disturbing activities. All survey/clearance work will be conducted in accordance with BLM Manual standards dealing with cultural surveys. ***Since completion of the plan amendment, the only ground-disturbing project proposed in the ACEC was a livestock exclosure fence along the southwest side of the ACEC. Cultural clearances were performed prior to construction.***
2) Perform regular patrols of cultural sites within the area to protect against unauthorized excavation and monitor general site conditions. Patrols will be conducted at random by both law enforcement and cultural resource personnel.

Water Level/Quality
1) Monitor lake level by obtaining data collected by the Oregon Department of Water Resources from an existing gauging station on the lake. This information is only of importance in response to a specific proposal where lake levels may be affected. It is possible that additional gauges could be required, depending on the proposal. Monitoring specifics will be developed during the permitting process.
2) Monitoring of total dissolved solid concentrations and other water chemistry may also be necessary in response to certain types of project proposals to determine whether water management goal is being met. Monitoring specifics will be developed during the permitting process.

Since completion of the plan amendment, no major land or water-disturbing projects have been proposed and this monitoring has not been necessary.

Invertebrates/Wildlife
1) Continue on-going inventory and monitoring of wildlife species and their habitats, including sensitive species. ***A reptile study was completed in FY 2002.***
2) Inventory and monitor relative abundance of aquatic invertebrate populations as an indicator of aquatic ecological health. This type of monitoring will only be conducted in response to a proposal which potentially threatens the lake ecology. ***Since completion of the plan amendment, no land or water-disturbing projects have been proposed and this monitoring has not been necessary.***

Special Management Area Monitoring — Wilderness

Monitoring activities within all WSA's, would follow the direction within the existing *Wilderness IMP*. This policy requires monitoring of all WSA's, at a minimum of once per month during the months the area is accessible by the public, or more frequently if necessary because of potential use activities or other resource conflicts. Methods of monitoring could include aerial surveillance, on-the-ground surveillance, visitor contact, and permit compliance.

The resource area's 12 WSA's are monitored at least monthly from March through October. Several WSAs with high recreational use are monitored more often during the summer months. Monitoring consists of patrolling by vehicle or on foot to check traffic counters, boundary and OHV signs, and recreational use. Reports of each visit are completed and kept on file.

Special Management Area Monitoring — Wild and Scenic Rivers

Annually monitor the administratively suitable river to ensure the outstandingly remarkable values are protected and the free-flowing condition of the river is maintained consistent with the "National Wild and Scenic River Act." Monitoring methods could include field surveillance, user contacts, permit review, and photo documentation.

Photoplot monitoring occurs on the lower reach of Twelvemile Creek on about a 5 year interval. The creek is walked and riparian conditions documented. In 1999, baseline photos were taken. In 2004, 11 photoplots were taken within the wild and scenic river corridor as part of a larger stream photoplot monitoring effort. See the Fish and Aquatic Habitat Monitoring section. Aerial photography was also acquired in FY 2003 and may be used in the future to assess resource changes.

Special Management Area Monitoring — Significant Caves

No monitoring was specified; none has been conducted.

Cultural and Paleontological Resource Monitoring

Management Goals 1 and 3. Develop procedures to track consultation and document all written, telephone, electronic, and in-person communications; and review yearly for adequacy related to cultural ACEC's or other important cultural sites. Develop on-the-ground monitoring of identified sites to determine condition, impacts, deterioration, and use of such sites.

The following ACEC's contain cultural resource values and will be visited periodically to determine whether any actions taking place in the area are causing detrimental changes to the cultural values. Any changes will be noted and recorded in the resource area cultural resources data base. Consultation with various Tribal groups with interests in the areas will be conducted periodically to determine if there are concerns from the Tribes or if they have observed changes to the condition of resource values in the area.

High Lakes: Visit monthly, April through October
Lake Abert: Visit quarterly
Rahilly-Gravelly: Visit quarterly
Red Knoll: Visit quarterly
Table Rock: Visit monthly, April through October

Visits to the ACEC's will be made by the cultural resource specialist or designated representative. During consultation meetings with Tribal staffs, questions, concerns, or observations from specific ACEC's will be recorded. All resulting information will be entered into the resource area cultural resource data base.

Periodic visitations to other cultural resource sites within all portions of the planning area will be made on a quarterly basis. A minimum of 200 sites per year will be visited. The purpose of the visits will be to monitor the condition of the site and document any disturbance or deterioration of the site. Visitation will be made by the cultural resource specialist or designated representative. The condition of the site and other data collected will be entered into the cultural data base. If the sites are listed on the NRHP or have been determined to be eligible for listing, consultation with the State Historic Preservation Officer will be made, when necessary, to determine the appropriate action to stop the deterioration of the site, provide mitigation, or, in the case of criminal removal of site materials, determine the appropriate legal action to be taken.

Management Goal 2. Monitor the effectiveness of presentations to the public, educational brochures, interpretative materials, informational materials, scientific research collections and materials, and informational displays for the public and scientific communities.

Management Goal 4. Cultural plants and their respective plant communities (ethno-habitats) will be considered prior to initiating any ground-disturbing projects through the NEPA and botanical clearance processes. Develop plans with Tribal peoples for the collection and protection of cultural plants and continue discussions with Tribal users/communities to determine long-term sustainability. Monitoring methods could include photo plots, plant density quadrats, and ocular estimates and would follow USDA-FS and USDI-BLM (2000c).

Human Use and Value Monitoring

Use BLM records to determine the amounts of commodity uses (i.e., AUM's, tons of minerals, board feet of special forest, etc.).

Commodity uses are summarized in Table S-1.

Monitor employment in related industries using public information sources. Use BLM budget information to project spending to meet environmental quality. Determine amounts spent on new facility construction. Use the recreation management information system (RMIS) and other site-specific measures to determine visitor use levels. Track local versus nonlocal contracts and purchases using BLM procurement records. Track BLM employment levels using payroll records.

BLM budget, procurement, and employment data is stored within several different computer database systems including the Budget Planning System (BPS), Management Information System (MIS), annual workplan (AWP) spreadsheets, Federal Empoyee Payroll System (FEPS), and Interior Department Aquistion System (IDEAS). Recreational use data is also periodically entered into RMIS (see Recreation Monitoring section).

Air Quality Monitoring

There is an air quality monitoring network developed for Oregon that will be used to determine whether the national ambient air quality standards are met; monitoring stations are located in Klamath Falls and Lakeview. This monitoring network will continue be used to determine background pollution levels which can help measure emission increases during fire events.

The Oregon Department of Environmental Quality (ODEQ) maintains this monitoring network. The ODEQ should be contacted directly for air quality data from these stations.

Fire Management Monitoring

Management Goal 1. Monitoring will determine whether suppression strategies, practices, and activities are meeting resource management objectives and concerns.

Management Goal 2. Monitoring studies will be encouraged on all emergency fire rehabilitation projects to determine whether emergency fire rehabilitation objectives were met. Monitoring will be implemented on all projects that employ new techniques, seed mixes, or rehabilitation methods. Emergency fire rehabilitation funds may be used to fund monitoring studies for up to three growing seasons following fire control.

Management Goal 3. Pre-fire condition and post-fire effects will be determined by monitoring plant community composition and trend in burn areas to determine natural recovery, responses from seed planting, and weed and cheatgrass invasion. Monitoring methods may include photo points, density, cover, frequency plots (pre- and post-burn), and ocular estimates.

FIREMON, a fire effects monitoring and inventory protocol, is being field tested in the sagebrush steppe vegetation types. This testing is expected to result in the development of an *Interagency Fire Effects Monitoring Handbook* that will be used in the future.

Monitoring of recent prescribed/wildfire areas (Long Canyon, Beaty Butte, and Juniper Mountain) was conducted by an ID Team in FY 2004 to determine vegetation response and suitability for return of livestock grazing use.

Three FIREMON transects were revisited within wild and prescrbed fire areas on the Beaty Butte allotment.

Four FIREMON transects were revisited at the CCC exclosure in the Little Juniper Spring allotment.

Rephotographed two photo plot series of bitterbrush plants in the Long Canyon prescribed burn area.

Recreation Monitoring

Monitoring will occur on an ongoing or annual basis. Monitoring will include periodic patrols to check boundaries, signing, and visitor use; to ensure visitor compliance with rules and regulations; to establish baseline data and observation points to determine current impacts from recreation use; and development of studies to help determine appropriate levels and patterns of recreational use and the influences of other resource uses. Monitoring will focus on visitation levels, compliance with rules, regulations, and permit stipulations for specific sites (developed sites), dispersed uses, and prescribed standards and guidelines as set in the respective recreation opportunity spectrum classes.

Methods of monitoring may include the use of traffic counters, surveillance at developed recreation sites, limits of acceptable change studies, user contacts, and photo documentation of the changes in resource conditions over time. Monitoring data will be used to manage visitor use, develop plans and projects to reduce visitor impacts, and meet visitor demand.

One seasonal recreation technician has been dedicated to monitoring vistor use and compliance with rules and regulations in recreation areas in the northern part of Lake County for several years. Monitoring of recreational sites is done throughout the year. Traffic counters are checked and visitor contacts made. Visitation numbers are estimated from user contacts and traffic counters and entered in RMIS, BLM's Recreation Management Information System. RMIS details such things as visitor hours and activities, volunteer hours and activities, and special recreation permit (SRP) visitation and fees.

Wilderness therapy school SRP monitoring was conducted over the last several years and consisted of campsite and access road inventories, and documenting adherence to permit stipulations.

Off-Highway Vehicle Monitoring

Monitoring OHV uses within the planning area will focus on compliance with specific designations, as well as, determining whether these uses are causing adverse effects on other resources (i.e., soils, water, air, vegetation, fish and wildlife, etc.). Methods of monitoring may include visitor contacts, permit review, visual surveillance, traffic counters, periodic patrols to check boundaries, signing, and visitor use, limits of acceptable change, and/or aerial reconnaissance. Closures will be monitored to ensure public safety and protect affected roadbeds or areas. Baseline data will be established for sites where OHV use is occurring, and sites will be rehabilitated or closed as necessary.

One seasonal recreation technician has been dedicated to monitoring vistor use and compliance with rules and regulations, including OHV uses, in recreation areas in the northern part of Lake County for several years.

Visual Resource Monitoring

Monitoring will be ongoing for all projects (including, but not limited to projects associated with any developments, land alterations, vegetation manipulation, etc.) which could potentially affect visual resources. These projects will be monitored to ensure compliance with established VRM classes. Monitoring will include the use of the visual contrast rating system, described in *BLM Manual 8400*, where appropriate, during project review.

Potential impacts to visual resources resulting from proposed projects are evaluated during the NEPA process and monitored during and after project implementation.

Energy and Mineral Monitoring

Management Goal 1. Monitoring of mining operations or mining claims will be done to ensure compliance with 3803, 3809, and other regulations and conditions of approval, especially preventing "unnecessary or undue degradation" of disturbed areas in coordination with state regulating agencies. Monitoring activities will include periodic field inspections of mining claim activities. BLM policy establishes minimum inspection frequencies for mining operations as follows: quarterly inspections are required for all operations using cyanide, and biannual inspections for all other active operations. Operations in sensitive areas or operations with a high potential for greater than usual impacts will be inspected more often. Vegetation and soil attribute sampling will be conducted. Reclamation will be conducted in accordance with *BLM Handbook H-3042-1*.

Management Goal 2. Monitoring for leasable minerals will be done to ensure compliance with applicable laws, regulations, conditions of leases, and the requirements of approved exploration/development plans. On producing leases, ensure an accurate accounting of material removed, protection of the environment, public health and safety, and identification and resolution of mineral trespass. Monitoring activities will include:

1) Periodic field inspection of leasable mineral activities. Inspections will be conducted to determine compliance with applicable laws, regulations, conditions of leases, and the requirements of approved exploration and development plans.

2) Applicable resource attribute sampling.

Management Goal 3. Monitoring for salable minerals will be done to ensure compliance with applicable laws, regulations, BLM policy contained in *BLM Manual Section 3600* and *BLM*

Handbook H-3600-1, and the requirements of approved mining plans. On producing operations, ensure an accurate accounting of material removed, reclamation, protection of the environment, public health and safety, and identification and resolution of salable mineral trespass. Operations in sensitive environmental areas or operations with a high potential for greater than usual impacts will be inspected more often.

Monitoring activities will include:

1) Periodic field inspection of common use areas, and other salable mineral extraction operations. Inspections will be conducted to determine compliance with applicable laws, regulations, and the requirements of approved mining plans.

2) Applicable resource attribute sampling.

There are currently two active plans of operations on the planning area. Other plans of operations could be developed and approved during the life of the RMP. Each plan has or will have special stipulations covering the life of the plans of operations. These stipulations will be monitored by the compliance officer at a minimum of once per quarter for each plan of operation and documented in the mining case file. Any noncompliance items will be noted and 3809 procedures followed as directed by the *BLM 3809 Manual and Handbook*.

A total of 29 mineral compliance inspections were conducted in FY 2004.

Site reclamation activities at the former Oil-Dry mining area was monitored in FY 2004. Site contouring and seeding establishment was documented.

Lands and Realty Monitoring

Management Goal 1. Progress on land tenure adjustment actions will be monitored through the BLM accomplishment tracking process. Periodic planning updates will be published, identifying acres transferred within the various land tenure zones.

Management Goal 2. This will be monitored as proposals are evaluated through the NEPA process. Individual projects will be monitored to ensure compliance with the terms and conditions of the authorizing document and through the BLM accomplishment tracking process. Periodic planning updates will be published identifying land use authorizations issued during the life of the plan.

Management Goal 3. Public access needs will be reviewed periodically. Access acquisition will be monitored through the BLM accomplishment tracking process. Periodic planning updates will be published identifying access acquired during the life of the plan.

Management Goal 4. Actions will be monitored through the BLM accomplishment tracking process. Periodic planning updates will be published identifying areas withdrawn during the life of the plan.

This information is reported in Table S-1 and the Lands and Realty section earlier in this document.

Roads/Transportation Monitoring

Roads conditions will typically be monitored in conjunction with the conduct of other resource programs. Roads will also be monitored, usually on an annual basis, to determine maintenance needs.

Road and other facility maintenance needs are input and tracked within the BLM's Facility Maintenance Management System (FMMS).

Monitoring of any closed roads will be done in conjunction with monitoring other resource uses such as watershed condition or OHV use. The purpose of this monitoring will be to ensure that closed roads are not being used and that resource damage such as erosion is minimized.

Hazardous Material Monitoring

Site clean-ups will be monitored to protect and safeguard human health, prevent/restore environmental damage, and to limit the BLM's liability. The BLM HAZMAT Coordinator will monitor the performance of the clean-up contractor for all release on public lands to ensure full compliance and damaged land restoration. All monitoring data will be collected at the time and place of the incident or until the cleanup is completed and there is no future threat to human health or the environment.

HAZMAT site monitoring data is kept in the district's monitoring files and in the national BLM site clean-up data base.

Alkali Lake. The ODEQ's Alkali Lake chemical waste disposal area will continue to be monitored by BLM and ODEQ in accordance with the existing memorandum of understanding between both agencies. The additional steps taken in 1990 to protect public lands that are threatened by chemical release will continue to be monitored by ODEQ. This monitoring includes conducting periodic well and soil sampling inventories of the area in and around the disposal site. The existing fencing will be maintained by ODEQ. The perimeter warning signs will be replaced, as needed. Other monitoring will be done by periodic visits to the site to check boundaries, signing, and visitor use of the area. The number of site visits will be determined by funding levels, with a minimum of one visit annually.

These visits/monitoring efforts are logged in the BLM central file system.

☆ U.S. GOVERNMENT PRINTING OFFICE: 2005 — 789-103 / 03012 Region No. 10

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